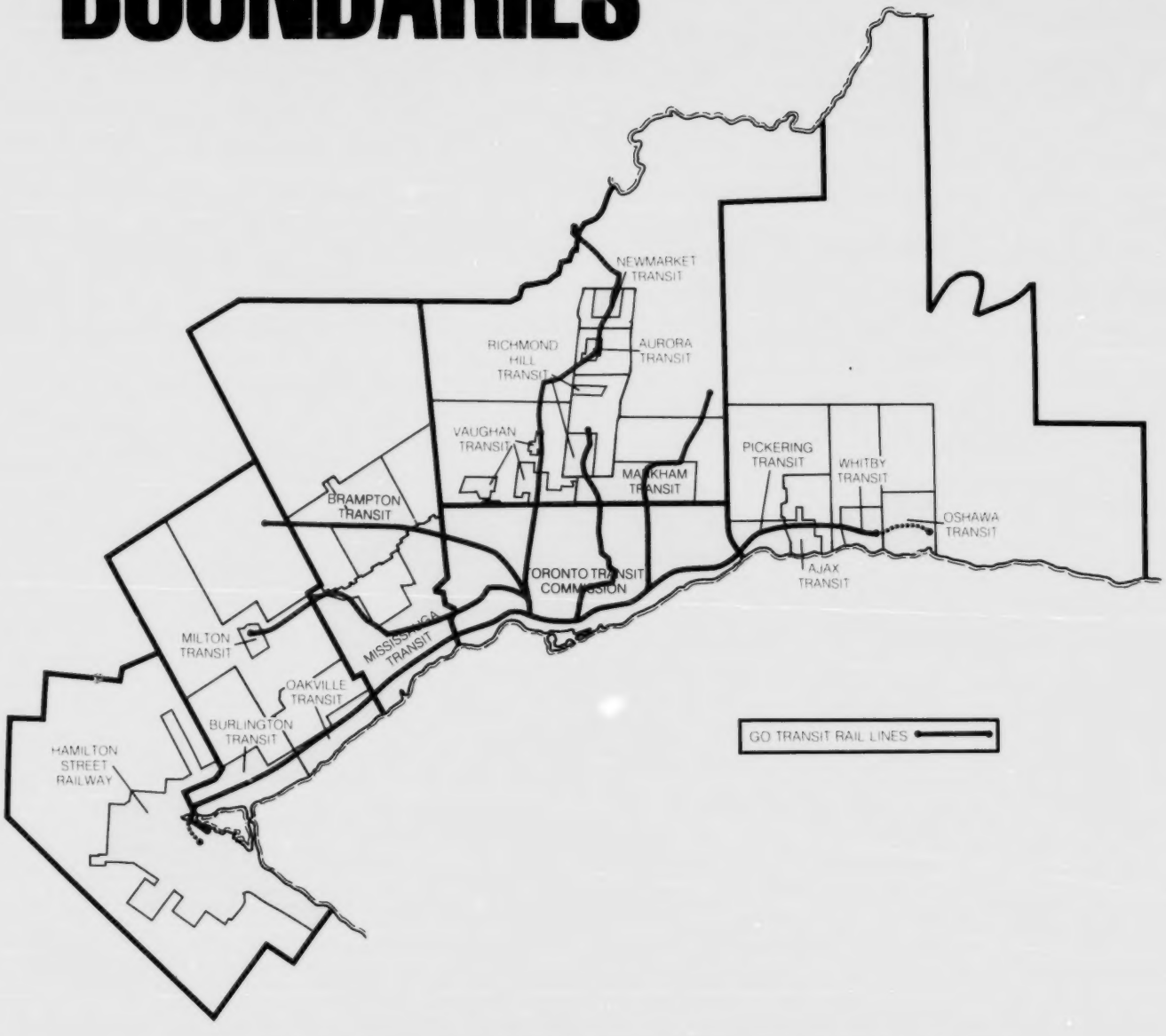
CROSSING THE BOUNDARIES



COORDINATING TRANSIT IN THE GREATER TORONTO AREA

REPORT OF THE TRANSIT ADVISORY GROUP TO THE MINISTER OF TRANSPORTATION FOR ONTARIO

CROSSING THE BOUNDARIES

- COORDINATING TRANSIT IN THE GREATER TORONTO AREA

Report of the Transit Advisory Group to
the Minister of Transportation for Ontario

December 1987

Ontario

Transit Advisory Group
to the Minister of
Transportation

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December 8, 1987

The Honourable Ed Fulton
Minister
Ministry of Transportation
Ferguson Block
Queen's Park
Toronto, Ontario
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Dear Mr. Minister:

We are pleased to submit our report on inter-regional transit coordination in the greater Toronto area. The assignment has been a challenging one, for our study revealed many coordination issues and identified a wide range of organizational options for dealing with them.

As a result of the work, we have concluded that present organizational arrangements are not adequate, but there is no need to create a transit superagency because the TTC, GO Transit and most of the other systems are individually excellent. Instead, we recommend that your Ministry should assume a more active role in coordinating the systems, and that you should establish an Inter-Regional Transit Coordinating Agency as an advisory body to assist in the process.

The time is ripe for such improvements, because only a few of the coordination challenges are now urgent and there is still time to deal with the rest before they become serious. It is clear that these challenges will have to be met if the area is to further its worldwide leadership in transit.

We hope this report will help you bring about better transit service for the cross-boundary traveler.

Yours sincerely,

David Hobbs
Chairman

Al Cormier

Frances Frisken

Lynne Gordon

Richard Soberman

EXECUTIVE SUMMARY

The Transit Advisory Group was appointed by the Hon. Ed Fulton, Minister of Transportation, in July, 1986 to study options for improving the coordination of transit services in the Greater Toronto Area (GTA). The area includes the Regions of Metro Toronto, Durham, York, Peel, Halton, and Hamilton-Wentworth. Transit services in the area are supplied by 17 independent transit systems.

The Group met 28 times, received 70 submissions, consulted with representatives of all affected municipalities, and carried out an extensive program of research and analysis. This report presents the study findings and sets out our recommendations to the Minister.

MAJOR FINDINGS

GROWTH TRENDS

Growth forecasts for the study area indicate about one third of employment growth but only 5% to 10% of population growth will occur in Metro Toronto between 1981 and 2011. In addition, there is a mismatch between the kind of jobs and the kind of labour force being added in most areas. The result of these imbalances, along with the inevitable tendency for cross-boundary commuting in a large metropolitan area, will be an increase of some 500,000 to 700,000 in the number of daily person trips crossing the Metro boundary, and major increases in trips across the other regional boundaries and across the boundaries between local transit systems found within four of the six regions.

The share of these cross-boundary trips carried by transit will have to increase significantly if traffic chaos is to be avoided, because it is impossible to build enough new road lanes to carry the additional travelers by car. If transit is to increase its share substantially, however, there will have to be considerable improvement in the coordination of cross-boundary transit services.

ACCOMPLISHMENTS

The TTC and GO Transit are among the best transit systems in the world and most of the other systems have excellent records as well. However, despite their individual excellence, better coordination is necessary if residents of the GTA are to be provided with adequate, effective transit service now and in the future.

A good start has already been made:

- over 45 cross-boundary routes are now operated by GO Transit and the municipal transit systems
- fare integration and service coordination have been established between GO Transit and several of the local municipal systems, and between a number of the municipal systems themselves
- the planning organization and official plan framework for coordinating transit planning within each region has been established
- a number of recent planning studies have pointed to the need and laid the groundwork for coordinating regional plans in the best interests of the area as a whole

However, these accomplishments still fall well short of what is needed leaving numerous challenges to be faced.

OUTSTANDING CHALLENGES

The major challenges include the need to:

- increase fare integration and service coordination, with particular attention to reducing the widespread annoyance of being charged a full second fare for a short additional ride
- coordinate the transit plans of individual jurisdictions so as to best serve the area as a whole
- improve the coordination of special transit services for disabled persons
- develop land use patterns that are more transit oriented
- eliminate disincentives to the merger of local transit systems
- obtain more consumer input
- coordinate the gathering, analysis and distribution of data on transit
- improve the cost-effectiveness of overall public spending on transit

THE OPTIONS

To meet the challenges we considered a wide range of organizational options, extending from minor adjustments of the status quo through to full amalgamation of all the transit systems into one. Our findings show clearly that there is no need at this time for either federation or amalgamation of all the systems to create a single regional system. As a result, a short list of four main options for coordinating the individual transit systems was developed, involving less extreme organizational change.

MAKING THE APPROPRIATE CHOICE

These four were evaluated in terms of their effectiveness, accountability, and ease of implementation. The option that emerged as the most suitable overall is for the Ministry of Transportation to assume a more active role in transit coordination, assisted by an inter-regional transit coordinating agency.

This is a variant of the type of solution proposed by almost all of the submissions that addressed the issue of organization, which is that the Ministry of Transportation should assume the responsibility for transit coordination in the GTA.

RECOMMENDATIONS

Based on the study findings and analysis we make the following recommendations (which are copied here in full from Chapter 7):

RECOMMENDATION 1: OBJECTIVES

The following objectives should be adopted for the improvement of inter-regional transit service in the GTA:

INCREASE FARE INTEGRATION

Fare integration should be increased so as to make trips involving two or more transit jurisdictions more attractive and convenient. Particular attention should be given to reducing the annoyance of being charged a full second fare for a short additional ride.

IMPROVE SERVICE COORDINATION

Service coordination between the different transit operators should be improved in the interest of serving cross-boundary travelers better and increasing the modal split.

Opportunities for possible savings through a pooled approach on matters such as maintenance, staff training, etc. should also be explored. Such savings would benefit the riders indirectly.

IMPROVE PLANNING COORDINATION

Planning coordination should be improved so as to rationalize the planning initiatives of individual jurisdictions in the best interests of the area as a whole. Procedures should be established involving consultation that starts early in the planning process rather than after the plans are prepared.

IMPROVE COORDINATION OF TRANSIT SERVICES FOR DISABLED PERSONS

Coordination of special transit services for disabled persons should be improved in ways similar to those recommended for regular transit.

ENCOURAGE LAND USE PATTERNS THAT ARE MORE TRANSIT ORIENTED

Land use patterns and densities that are more transit oriented should be encouraged. To help bring this about, the Minister should initiate discussions with other ministries and with regional and municipal planning staffs to find ways to ensure that the requirements for effective transit operation and the needs of transit users are taken into consideration in municipal land use decisions. The Minister should also arrange to have the Ministry of Municipal Affairs involved in the early stages of discussions on all transit proposals that will affect land use.

ENCOURAGE THE DEVELOPMENT OF REGIONAL TRANSIT SYSTEMS

The development of regional transit systems should be encouraged. Existing financial disincentives to the merger of local systems in Durham, York, Peel and Halton should be eliminated. The successful development of regional transit in Hamilton-Wentworth should be used as a model to allay concerns about the provision of uneconomic routes and the allocation of operating costs to areas not benefiting from transit services.

ELICIT CONSUMER INPUT

Improved and ongoing arrangements should be established to encourage and respond to input from transit users and consumer groups, especially in the early stages of transit planning.

COORDINATE THE GATHERING, ANALYSIS AND DISTRIBUTION OF INFORMATION ON TRANSIT

The collection and analysis of transit data and the undertaking of research on transit issues should be coordinated, and a central repository for transit planning and monitoring information should be established in the GTA.

IMPROVE OVERALL COST-EFFECTIVENESS

In recognition of the limits on available financial resources, efforts to improve the overall cost-effectiveness of transit spending should be strengthened. Such efforts should include the exploration of opportunities to cut costs and increase efficiency through greater involvement of the private sector.

RECOMMENDATION 2: ORGANIZATION

The above objectives will have to be effectively pursued if the challenges are to be met. Ministry of Transportation leadership assisted by an inter-regional transit coordinating agency is recommended as the most appropriate institutional arrangement for doing so. We therefore recommend that:

The Ministry of Transportation should assume a more active role in inter-regional transit coordination in the Greater Toronto Area, and the Minister should establish an Inter-Regional Transit Coordinating Agency (ITCA) with its own staff to assist him in the fulfillment of this role.

RECOMMENDATION 3: RESPONSIBILITIES

The ITCA should be responsible for advising the Minister on ways to improve the coordination of cross-boundary transit in the GTA, with special reference to the objectives defined in recommendation 1. The ITCA should also play the role of transit advocate throughout the area.

RECOMMENDATION 4: STRUCTURE

AREA OF JURISDICTION

The area of jurisdiction of the ITCA should cover the GTA, including but not limited to Metropolitan Toronto and the Regions of Durham, York, Peel, Halton and Hamilton-Wentworth, and encompassing the GO Transit Service Area. The area of jurisdiction should be reviewed periodically by the Minister for possible extension within the GTA commutershed.

COMPOSITION OF THE BOARD

It is essential that the members of the coordinating agency take an area-wide view. For that reason, they should be citizens at large and not representatives of individual municipalities. As their role is only to advise the provincial government which already represents the people of the area, they do not need to be elected representatives. It is expected that the Minister will consult with Regional representatives on appointments to the board.

Accordingly, the following composition is proposed for the board:

The ITCA should have a board of directors composed of individuals appointed by the Minister. The board should consist of a chairman and 4 members serving on a part-time basis. Their terms of office and remuneration should be set in accordance with provincial standards for agencies of a similar nature.

STAFF AND BUDGET

The agency should have its own full-time staff headed by an experienced chief executive officer, and should be given sufficient financial resources to fulfill its responsibilities.

RECOMMENDATION 5: PROCEDURES

REVIEW OF CAPITAL AND OPERATING PLANS

The ITCA should review the 5-year capital and operating plans of each transit system in the GTA on a regular basis, and advise the Minister on any coordination issues raised by these plans.

EARLY CONSULTATION WITH PROVINCIAL AGENCIES, MUNICIPALITIES AND TRANSIT OPERATORS

The ITCA in cooperation with provincial agencies, the municipalities and the transit operators should establish a procedure for consultation starting early in the planning process, so as to achieve coordination as plans are developed.

CONSULTATION WITH OTHERS

The ITCA should seek input from others concerned with transit coordination, and provide information to them. Those consulted should include:

- transit users and consumer groups
- the general public
- special interest groups, including those representing disabled persons
- any other organizations concerned with transit coordination

The ITCA Board should establish a permanent advisory committee of transit users and consumer representatives.

RESEARCH

The ITCA should coordinate data collection and analysis in the area, and should also undertake research on transit coordination, initiate studies, gather necessary data, and carry out independent reviews as directed by the Minister. As a result of these activities, the agency should become the central repository and distribution centre for transit planning and monitoring information in the GTA.

REVIEW OF SUBSIDY POLICIES

The ITCA should review provincial subsidy policies to determine how subsidies can best be used to encourage transit coordination.

RECOMMENDATION 6: IMPLEMENTATION

Since a few of the challenges facing the area are considered serious and urgent and the others will become so if they are not acted on soon, implementation of the above proposals should proceed as quickly as possible.

RECOMMENDATION 7: REVIEW OF PROGRESS

The foregoing recommendations, if implemented, will establish a new institutional arrangement for transit coordination in the GTA. It will be important to review the progress of the new arrangement after a reasonable time to determine its effectiveness. Accordingly our final recommendation is that:

> **The Minister should review the accomplishments of the new institutional arrangement within 5 years of the time that it becomes operational.**

CONCLUSION

The GTA is served by transit systems that are among the best in the world. To continue and build on this tradition, leadership will be required to achieve better coordination among the individual transit systems.

There are a number of encouraging signs of the dawning of a new era of closer cooperation amongst the area's transit operators. Such a development is welcome, of course, for it will make it easier to meet the coordination challenges and deal with some of them sooner. However, such cooperation does not eliminate the need for the organizational changes recommended. Voluntary cooperation is too dependent on the individuals involved and on changes in the leadership of particular organizations. To ensure ongoing coordination and continuity, new institutional arrangements are necessary.

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CHAPTER 1

INTRODUCTION

This report is about public transit in the Greater Toronto Area. It deals with the need of travelers for better coordination among the 17 transit operators that serve the area.

The need is arising from growth trends which are bringing a significant increase in the number of cross-boundary travelers every year, thus making the systems more interdependent.

The mandate of the Transit Advisory Group is to explore the institutional options for bringing about needed improvements in coordination, and recommend any necessary institutional changes to the Minister of Transportation.*

The report describes the assignment given to the Group and the procedures followed, then sets out the findings of the study and the recommendations to the Minister.

For the sake of brevity throughout the report, the term "Transit Advisory Group" is often abbreviated to TAG; the terms "Advisory Group" and "Group" are also used on occasion, where the context makes the reference clear.

REPORT OUTLINE

Following this introductory chapter, Chapter 2 describes the assignment and the composition of the Advisory Group, gives the terms of reference and principal aims of the study, and outlines the work program.

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*The name of the portfolio was changed from 'Transportation and Communications' to 'Transporation' on September 29, 1987. The new names 'Minister of Transportation' and 'Ministry of Transportation' are used throughout the report for consistency, even though the references often apply to the period when the old names were in effect; the only exceptions are references to previous reports, position titles, public notices, and quotations which incorporate the term 'Transportation and Communications' or 'MTC', where use of the new name would be inappropriate.

Chapter 3 provides a detailed description of the existing situation throughout the study area.

Chapter 4 discusses future growth scenarios for the area, describes the coordination achievements to date, and identifies the outstanding coordination challenges that have to be faced.

Chapter 5 then discusses the range of organizational options for achieving the necessary coordination, and identifies the main options which need to be considered.

Chapter 6 evaluates these options, and selects the institutional arrangement that is most appropriate for the area.

Chapter 7 presents our recommendations to the Minister.

Supporting material for the various chapters is given in the appendices.

ACKNOWLEDGEMENTS

PREVIOUS STUDIES

A number of studies have already dealt in one way or another with transit coordination in this area, and TAG has found a considerable amount of the information they contain to be helpful in understanding the current situation. Their contribution to the present study is gratefully acknowledged.

The earlier studies are listed in Appendix A.

INPUT TO THE PRESENT STUDY

Many individuals and organizations have been of assistance to the Advisory Group in carrying out the study, and the Group extends its sincere appreciation to all who have offered their help.

Particular thanks are due to all those who made submissions to TAG. In total, 70 written submissions were received, 47 of them from individuals and 23 from organizations, 14 of the latter being transit operators and/or their municipalities. An overview and analysis of the submissions and related

interviews is given in Appendix B. Specific references to submissions are made where pertinent in the report.

Special thanks are also extended to members of the Municipal Advisory Group, a body of 49 municipal representatives appointed by their councils to advise TAG of municipal views and concerns regarding transit coordination. This body was formed at the request of the Minister to represent the regional councils and the councils of area municipalities with transit service. Its members provided valuable input to TAG during meetings held at two stages in the study. The municipal advisors are listed and details of these meetings are given in Appendix C.

Special appreciation is also due to a number of individuals with extraordinary experience, each of whom agreed to discuss his views with TAG. Included were two former Deputy Ministers of Transportation and Communications, Cam McNab and Harold Gilbert; a former Chief General Manager of the Toronto Transit Commission, Michael Warren; a former Chairman of the Municipality of Metropolitan Toronto, Paul Godfrey; and a former Chief Administrative Officer of Metropolitan Toronto, John Kruger. Their experience covers a period when the need for transit coordination was becoming more apparent, and when some earlier attempts were made to bring it about. Their insights constitute an important input to the study.

Another individual who made a useful contribution is Mr. G.E. Madden, a former director of marketing for GO Transit, who made a submission dealing with the evolution of GO and subsequently discussed his views at a meeting with TAG.

Thanks are also extended to the many staff members of transit systems and of regional and local municipalities throughout the study area. They provided much factual information as well as considerable assistance in arranging meetings, etc. Their help is greatly appreciated. Similar appreciation is due to the many staff members of the Ministry of Transportation who provided assistance throughout the study. Members of the Municipal Transportation Policy/Planning Branch were particularly helpful, and provided a great deal of useful research material and other information.

Thanks are also due to transit officials in London, England and in Hamburg and the Rhine-Ruhr area in West Germany for information provided during visits to

those centres by the Minister, the Honourable Ed Fulton, Deputy Minister David Hobbs, Chairman of TAG, and Assistant Deputy Minister for Provincial/Municipal Transportation, Gerry Johnston.

The Advisory Group also wants to thank the officials of the major transit agencies in greater New York and greater Chicago for the help they provided on one-day visits by the Group to each city. In each case a great deal of valuable information and experience was conveyed to TAG in a short space of time and with genuine hospitality. Similar thanks are due to the Quebec Ministry of Transportation, B.C. Transit, and the major transit agencies in greater San Francisco, Los Angeles and San Diego, which responded to requests for information on their coordinating arrangements. A list of the agencies and officials contacted in each of the aforementioned areas in North America is found in Appendix D.

The Advisory Group extends its sincere appreciation to all the above for their contributions to better transit coordination in the study area. Of course, the responsibility for the study conclusions and recommendations is solely that of the Transit Advisory Group.

ADDITIONAL COPIES

Readers who have a need for additional copies of this report should contact the Municipal Transportation Division of the Ministry of Transportation, 1201 Wilson Avenue, Downsview, Ontario M3M 1J8, (416) 235-3964.

CHAPTER 2

THE ASSIGNMENT

APPOINTMENT OF THE TRANSIT ADVISORY GROUP

The Transit Advisory Group was appointed on July 23, 1986 by the Honourable Ed Fulton, Ontario Minister of Transportation, to study options for improving transit services between the Regions of Metro Toronto, Peel, York, Durham, Halton and Hamilton-Wentworth. The panel, chaired by Deputy Minister David Hobbs, was asked to focus on the coordination of planning decisions, as well as the possibility of greater integration of existing and future services.

The Minister noted that there are currently 17 transit systems operating in the 6 regions, including the inter-regional service provided by the provincially-operated GO Transit, and then went on to say that:

> "Through GO Transit, provincial highways, subsidies to municipal transit systems and transfers for municipal roads, the Government of Ontario spends more than $500 million annually in the regions we are looking at. I believe the provincial government has an obligation to the taxpayer to co-ordinate better planning."

> "Public transit is one area of government activity affecting virtually all people in their day-to-day lives. Everyone pays for transit; directly at the farebox or indirectly through their taxes. I believe that government has a duty to consult widely with affected groups. To that end, the advisory group will consult broadly with public interest groups, elected municipal officials and transit operators."

Mr. Fulton noted that population and land use trends indicate an increase in cross-boundary travel which will necessitate more extensive co-ordination between municipal services and the GO Transit bus and rail network.

> "Clearly, development of transportation services to meet these emerging demands will require the comprehensive examination I am proposing. This study will identify the type of organizational and

operational options which could eventually knit these various services together into a co-ordinated system."

"Of course, our primary objective remains the same: to provide a better service to the public in terms of convenience and accessibility -- a service that asks the most for the taxpayers' dollars."

MEMBERS OF THE GROUP

The members of the Transit Advisory Group are:

David Hobbs - Mr. Hobbs is Chairman of the Advisory Group. He has been the Deputy Minister of Transportation since 1985, and before that was the Deputy Minister of Northern Affairs. He also serves as Chairman of the Transit Forum, an advisory body comprising the Managers of the public transit systems operating in Metropolitan Toronto, Durham, York and Peel.

Al Cormier - Mr. Cormier is Executive Vice President of the Canadian Urban Transit Association as well as Executive Director of the Ontario Urban Transit Association, and was formerly employed by the Ministry of Transportation. His professional interests include program development for transportation agencies throughout Canada and advising government on all major transit issues.

Frances Frisken - Professor Frisken teaches in the Urban Studies Program, Faculty of Arts and in the Faculty of Environmental Studies at York University. Her research has focussed on urban public transit and on political change in the Toronto Region since 1945. She has been a consultant to the Metropolitan Toronto Transportation Plan Review, the Ontario Task Force on Housing Policy and the Ontario Planning Act Review Committee.

Lynne Gordon - Ms. Gordon is a high profile radio and television broadcaster, investigative reporter and journalist. She is also the recently appointed Vice Chairperson of the Pension Committee of Ontario. Widely recognized as a consumer advocate, Ms. Gordon has hosted her own radio and television programs and written a number of consumer columns for newspapers and magazines. She is also the author of several books including two consumer handbooks (both best sellers) and her recently published autobiography, entitled "Working Without a Net". Ms. Gordon is also a former Chairperson (for six years) of the Ontario

Status of Women Council and a former National Entertainment Editor of the CKO Radio Network.

Richard Soberman - Professor Soberman (Civil Engineering) is the Director of the University of Toronto/York University Joint Program in Transportation. An international consultant in urban transportation, Mr. Soberman is the former Director of the Toronto Commuter Rail Study and of the Metropolitan Toronto Transportation Plan Review.

Staff Support - Full time staff support for the Advisory Group is provided by Donald Paterson, who has carried out extensive consulting assignments for The Ministry of Transportation on transit organization and finance.

TERMS OF REFERENCE

The terms of reference for the Transit Advisory Group are as follows:

Objective:

To identify the range of institutional alternatives available to government for improving transit services for cross-boundary travel in the GO Transit service area, and make recommendations on how present and future requirements can best be accommodated. Consideration will be given to improved coordination and integration of functions and services as well as organizational and financial arrangements.

Background:

Currently, there are seventeen public transit systems operating in the area encompassing the Regions of Metropolitan Toronto, Peel, York, Durham, Halton and Hamilton-Wentworth. Trends in population and employment point to a significant increase in cross-boundary travel and the resultant need to ensure proper coordination and integration of transit services in the interests of both the traveling public and the municipal jurisdictions affected. In a dynamic region like this, it is extremely important from time to time, to reassess the adequacy of the systems in place to respond to the needs of the community. This would include such matters as jurisdictional responsibilities,

legislative authorities, financial arrangements, coordinating mechanisms, and public policies.

The review of cross-boundary transit by this Advisory Group will address the opportunities for enhancement and requirements for change, over the next fifteen years.

Procedure:

This review will involve:

(I) A review of existing and anticipated future cross-boundary travel conditions in the study area, together with an assessment of the adequacy of our existing institutional arrangements to respond to these needs.

(II) A review of the approaches used by other governments and jurisdictions in addressing the coordination and integration of cross-boundary transit services.

(III) An identification of alternative approaches, from an institutional and financial perspective, that appear appropriate to our environment together with recommendations on future courses of action.

During this process the Transit Advisory Group will invite participation by interest groups and will consult with affected municipalities and organizations.

Reporting:

The Advisory Group will submit a report on its findings to the Minister of Transportation by the spring of 1987.

PRINCIPAL AIMS

To pursue the objective given in the terms of reference, the Advisory Group set out three principal aims for a satisfactory coordinating arrangement:

- it should be **effective;**
- it should be **accountable;** and

- it should be reasonably **easy to implement.**

These aims have helped guide the work of the study.

STUDY AREA

The study area covers the GO Transit service area which includes the Regions of Metro Toronto, Durham, York, Peel, Halton and Hamilton-Wentworth and extends somewhat beyond them to the north and west. For convenience it will often be referred to as the Greater Toronto Area or GTA. Whenever we use the latter term we are referring to the study area.

WORK PROGRAM

The assignment got under way with an inaugural meeting on September 9, 1986, and is completed with the submission of this report to the Minister in December 1987. During the study the Advisory Group met 28 times and carried out an extensive work program. The main components of this program are listed below.

TOUR OF EUROPEAN TRANSIT JURISDICTIONS

In early October, 1986, the Minister, the Honourable Ed Fulton, Deputy Minister David Hobbs, Chairman of TAG, and Assistant Deputy Minister for Provincial/Municipal Transportation Gerry Johnston studied transit organization first hand in Hamburg and the Rhine-Ruhr area in West Germany, and in London, England. They brought back extensive material describing the respective organizational arrangements, and reported their findings to TAG.

STUDY AREA TOUR

Also in early October, the Advisory Group carried out an extensive study area tour focused on interfaces between the different transit systems in the area.

REVIEW OF PREVIOUS STUDIES

As noted in Chapter 1, transit coordination in the area has been dealt with in a number of earlier studies which are listed in Appendix A. The pertinent parts of these previous studies were reviewed by the Group.

RESEARCH

A broad program of research was initiated early in the study and has continued throughout most of the study period. Its main components include:

- Review of a large amount of research undertaken by other bodies, including the Ministry of Transportation, the TTC, Metro Planning Department, GO Transit, etc. Much of this is background material, essential for understanding the issues of transit coordination.

- Research on the present situation in transit coordination throughout the study area.

- Review of past attempts to coordinate transit in the study area, with particular attention to the history of TATOA (GO Transit).

- Review of previous studies of transit coordination in foreign areas. See Appendix G.

- Research on transit coordination in 7 urban-centred areas in North America, including visits by TAG to New York and Chicago. See Appendix G.

SUBMISSIONS

A public notice calling for written submissions was inserted in newspapers throughout the study area at the beginning of December, 1986. The notice also appeared in the news bulletins published by the TTC, GO Transit, Mississauga Transit and the Hamilton Street Railway for distribution to their passengers.

Submissions were accepted up to the end of April, 1987, with 70 being received in all. Ten of those submitted by organizations were presented by delegations, each of which met with TAG to discuss their views and answer questions. See Appendix B.

MEETINGS WITH MUNICIPAL ADVISORS

To allow for frank discussion, the 49 municipal advisors were divided into 3 groups, each of which had an initial meeting with the Minister and TAG early in 1987. This initial round was followed by a meeting of the whole Municipal Advisory Group with TAG late in May. Details are given in Appendix C.

These meetings provided valuable municipal input to the study and helped TAG gauge the feasibility of various options.

SPECIAL INTERVIEWS

As noted in the acknowledgements in Chapter 1, informal interviews were held with a number of individuals whose broad experience is especially pertinent to the study. Their views helped bring the key issues into clearer focus.

ANALYSIS

Analysis of the above input accounted for most of the work program in the last months of the study. The main steps in the analysis were:

- identifying the problems, challenges and opportunities;
- determining the options available for dealing with them;
- choosing the proper criteria;
- evaluating the options;
- drawing the conclusions; and
- formulating the recommendations.

PREPARATION OF THE REPORT

The report was drafted section by section as the steps in analysis were completed. It was then reviewed, revised and edited into the final form presented here.

CHAPTER 3

THE CURRENT SETTING

Transit coordination is of concern to cross-boundary riders, who want good service; to the transit operators, who provide the service; and to the public and the governments which represent them, who subsidize the service.

This chapter describes the existing governments and public transit systems in the study area, the overall development pattern, the present cross-boundary services, and the riders who use the services.

EXISTING INSTITUTIONAL ARRANGEMENTS

GOVERNMENT ORGANIZATION

The Canadian government has no direct role in the provision of public transit in the study area but it has an important indirect role through its interest in and control over the railways, which lease certain commuter facilities to GO Transit. These facilities are essential to GO, so the Federal government can influence the provision of GO services by affecting the lease terms and negotiations.

In comparison, the Ontario Government plays both a major direct role by way of GO Transit, and a major indirect role through the subsidization of municipal transit systems.

The municipal governments in the study area comprise six regional municipalities and their 36 area municipalities (see Map 1). Compared to most similar urban-centred areas in the world, this is a very rational and well-consolidated municipal government structure.

The 1986 census population of the six regions is as follows:*

*Future forecasts are dealt with in chapter 4.

	Population	%
Metropolitan Toronto	2,192,721	52.8
Durham	326,179	7.9
York	350,602	8.4
Peel	592,169	14.2
Halton	271,389	6.5
Hamilton-Wentworth	423,398	10.2
Total study area	4,156,458	100.0

It should be noted that the commutershed is larger than these 6 regions, as evidenced by the fact that the GO Transit service area extends outside them to Barrie on the north and Guelph on the west (see Map 2 on page 29).

TRANSIT ORGANIZATION

Provincial

The Ministry of Transportation has the major overall responsibility for transit. Another provincial agency, the Ontario Highway Transport Board (OHTB), is involved in the regulation of public transit services which cross municipal boundaries.

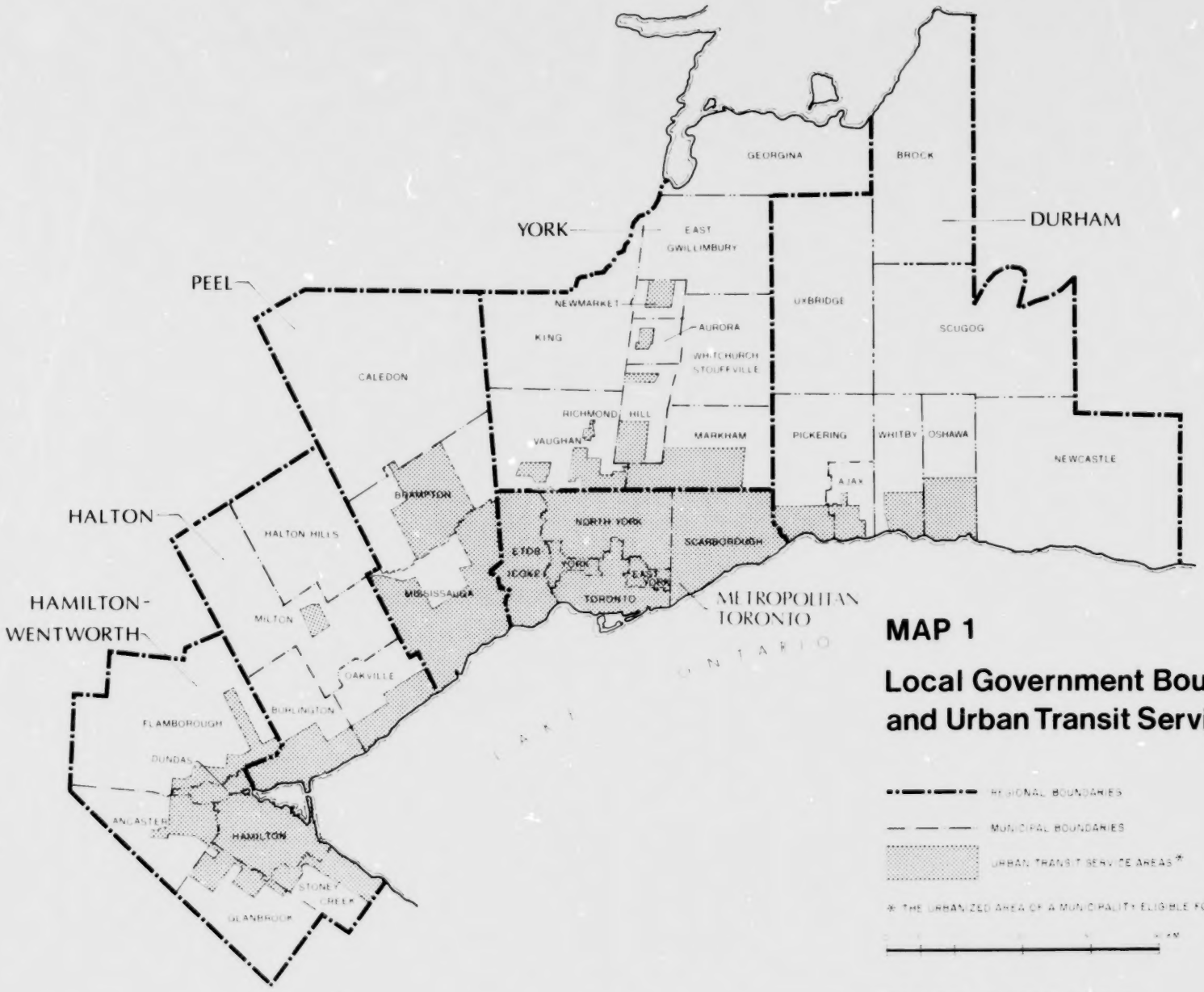
Inter-Regional

Inter-regional commuter services in the area are provided by GO Transit. GO is operated by the Toronto Area Transit Operating Authority (TATOA), which is under the control of an inter-regional board that reports to the Minister of Transportation. This board comprises the chairmen of the six regional municipalities in the study area, plus a chairman of the board who is appointed by the Minister.

Regional

There are two regional transit systems in the area, the Toronto Transit Commission (TTC) and the Hamilton Street Railway (HSR). The Municipality of Metropolitan Toronto Act created the TTC and made it solely responsible for public transit throughout Metro. The Commission is appointed by the Metropolitan Toronto Council.

The Regional Municipality of Hamilton-Wentworth assumed responsibility for public transit some years after the region was formed, taking over the HSR from the City of Hamilton and extending its operations in the urbanized part of the



MAP 1

Local Government Boundaries and Urban Transit Service Areas

REGIONAL BOUNDARIES

MUNICIPAL BOUNDARIES

URBAN TRANSIT SERVICE AREAS*

* THE URBANIZED AREA OF A MUNICIPALITY ELIGIBLE FOR PROVINCIAL SUBSIDY

TRANSIT ADVISORY GROUP JUNE 1987

region. The HSR is operated by the Hamilton-Wentworth Transportation Department, which reports to a committee of Regional Council.

Local

There are 14 other transit systems, each operated by an area municipality, 4 of them in Durham (Oshawa, Pickering, Ajax and Whitby), 5 in York (Markham, Vaughan, Richmond Hill, Aurora and Newmarket), 2 in Peel (Mississauga and Brampton) and 3 in Halton (Burlington, Oakville and Milton). In all these area municipalities, as in Hamilton-Wentworth but unlike Metro, the urban transit service area* does not cover the entire muncipality. These service areas are shown on Map 1.

The municipal administrative organization for the local transit systems varies, with transit services being provided through a municipal department in 13 of the 14 municipalities. There is, however, considerable variation in the way that transit has been organized on a departmental basis. Four municipalities (Mississauga, Newmarket, Oakville and Pickering) operate transit through specific Transit Departments. Another 4 systems are operated as part of the Engineering or Public Works Departments (Burlington, Richmond Hill, Vaughan and Whitby), while two are administered by the Administration Department (Ajax and Markham). Aurora administers transit through the Treasury Department, and in Milton, transit is administered through the Clerk's Department. Brampton Transit is operated as a section of the Community Services Department.

The remaining local transit system (Oshawa Transit) is operated by the Public Utilities Commission, although the transit vehicles are owned directly by the City.

The TTC, the HSR, GO Transit, and the 14 local operators make a total of 17 independent systems delivering public transit services in the study area.

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*The urbanized area of a municipality eligible for provincial subsidy.

The regional acts for Durham, Peel and Halton allow for the consolidation of local systems into a regional system, at which time all local systems in the region must cease to exist. The York act has no such provision, however, and would presumably have to be amended before a regional transit system could be established there.

The Transportation Planning Forum

A Transportation Planning Forum was established in 1986 under the chairmanship of the Assistant Deputy Minister for Provincial/Municipal Transportation to review various aspects of transportation in Metro, Durham, York and Peel (referred to as the GTA in the Forum reports). The Forum established a number of working committees composed of key staff officials from the province, the 4 regions, the transit operators, and the area municipalities concerned. The Forum is comprehensive in that it deals with roads and transit as well as their relationships with land use. However it does not include any participants from Hamilton-Wentworth or Halton.

The Transit Forum

The Transit Forum was established following the 1984 Study of Inter-Regional Transit Coordination in the Greater Toronto Area (see Appendix A) to provide a common meeting ground for the discussion of transit operational issues and the sharing of information. The Forum is an advisory body only, and has no powers. It is chaired by the Deputy Minister of Transportation, and comprises the managers of the transit systems in Metro, Peel, York and Durham, including GO Transit. These account for 13 of the 17 systems in the study area, as the 4 operators in Hamilton-Wentworth and Halton are not included.

Special Transit Services for Disabled Persons

Special transit services for disabled persons are currently the subject of a comprehensive study which is being carried out on a province-wide basis. For that reason TAG was not given the terms of reference, the time or the budget required to study such services. A number of submissions on the subject have been received, however, and these along with TAG's own observations show that transit for disabled persons has coordination requirements similar to those of regular transit, though perhaps more difficult in some respects. This suggests that improved coordinating arrangements worked out for regular transit should be applicable to such special services as well.

Private Companies

There are a number of private bus companies which operate public transit services under contract in the area. These include Gray Coach Lines (classified as private though it is a subsidiary of the TTC), which operates several bus routes for GO Transit (described later in the chapter) and also provides special bus services to Pearson International Airport; and 5 other companies which operate the following municipal transit systems under contract:

System	Operated By
Ajax	Charterways
Aurora	Travelways
Markham	The Miller Group
Milton	Milton Bus Lines
Newmarket	Travelways
Richmond Hill	Travelways
Vaughan	Can-Ar-Coach
Whitby	Charterways

Thus 8 of the 17 systems in the area are operated by private companies. However, these 8 systems accounted for only about 1% of total ridership in the area in 1985 (see Table 2 on page 23).

In addition to providing contracted municipal services, the private sector provides a number of other useful transportation services in the study area.

There are 42 private operators holding public vehicle licences in the study area, and a number of operators located outside the study area with routes that extend into the area. A number of these private companies provide specialized services (e.g., charters, tours, and contracted services to municipalities, school boards and the private sector). Although special transit services for disabled persons are beyond the terms of reference for the Transit Advisory Group, we note that private operators play a significant role in providing such services under contract.

A number of private carriers also provide regularly scheduled inter-city services in the study area. As an indication of the scale of this function, it is noted that there are 14 private carriers making 3,488 scheduled trips per week on 42 routes

and to 62 locations in the GO Transit service area*. Many of these routes operate closed-door between the cities they connect. The others can be said to augment the inter-regional services provided by GO Transit.

Thus, although municipal systems operated by private companies account for only about 1% of public transit ridership in the area, other private bus operations meet a variety of specialized needs.

In addition to private bus operations, there are numerous taxi businesses in the study area. Taxi services are, of course, more expensive for the user than public transit. Nevertheless, the taxi industry works to supplement the activities of public transit operations and thus helps to meet the full range of transportation needs in the study area.

TRANSIT FINANCE

Since all the public transit systems in the area operate with a deficit, they all require public subsidy in addition to fare revenue. The provincial subsidy formulas for municipal transit systems and for GO Transit are as follows:

Provincial Subsidies For Municipal Transit Systems

The municipal transit systems, whether regional or local, receive an incentive-oriented, population-based provincial operating subsidy. This basic subsidy is proportional to one half of the theoretical or targetted net cost. If the targetted ratio of revenues to costs is not met, an additional subsidy of 25% of the difference between actual and targetted net costs is paid, within given limits. Thus the municipal share of transit costs increases if municipal transit systems do not meet the applicable provincial target, thereby providing an incentive. The population-based cost recovery targets are set out in Table 1.

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*Source: Presentation to the Transit Advisory Group by the Ontario Motor Coach Association.

TABLE 1

BASIC OPERATING SUBSIDY FORMULA

Population	Target Revenue as % of Operating Cost	Basic Provincial Subsidy as % of Operating Cost
Up to 100,000	50%	25%
100,001 - 150,000	55%	22.5%
150,001 - 200,000	60%	20%
200,001 - 1,000,000	65%	17.5%
Over 1,000,000	72.5%	13.75%

Municipalities whose population is growing more than 4% a year qualify for an additional provincial operating subsidy. Special operating subsidies for a new transit facility on an exclusive right-of-way may also be provided.

The province also pays 75% of most capital costs of the municipal systems.

The remaining subsidy requirements must be met by the municipalities.

GO Transit Subsidies

Because it is an inter-regional carrier established by the province, the province has taken full responsibility for GO Transit from the outset, paying 100% of its capital costs and operating deficits. A target revenue : operating cost ratio of 65% has been set for GO.

Cross-Boundary Subsidy

A 100% subsidy was established in 1979 for the portion of a municipal route extending beyond a regional boundary. The subsidy encouraged the establishment of a number of new cross-boundary routes up to 1984, when its extension to additional routes was put on hold pending a review that is currently under way. The amounts paid under this special subsidy program are discussed later in the chapter along with cross-boundary ridership trends.

TRANSIT PLANNING

The creation of regional governments with viable area municipalities has enabled competent regional and local planning departments to be established with built-in administrative arrangements to coordinate their activities. The organizational structure necessary for coordinated transit planning within each

region is thus already in place, although it may not be fully effective in the regions with separate transit systems operated by area municipalities.

The division of planning responsibilities between a municipality and its transit system has also sometimes resulted in coordination problems, but the municipality clearly has the power to overcome them if it decides to do so.

When we turn to inter-regional transit planning, we find that no inter-regional planning machinery is fully operational. The Ministry of Transportation has the authority for such planning, however, and has been taking on more of it in recent years. In particular, the Ministry of Transportation is now doing the strategic planning for GO Transit, leaving the operational planning to GO.

The major existing gap in transit planning, therefore, occurs at the inter-regional level, where effective machinery with the clear mandate to continuously coordinate transit planning on an area-wide basis is not in operation. This is discussed in the next chapter.

CHARACTERISTICS OF THE TRANSIT SYSTEMS

SERVICE AREA POPULATION

As noted above and shown on Map 1, none of the municipal transit systems outside Metro has an urban transit service area that covers the entire municipality. The service area populations are reported by the municipalities and represent varying portions of total population ranging from nearly 100% to under 70%, with a weighted average of 94%. Combined with the 100% in Metro, this gives an overall weighted average of 97% coverage for all the study area municipalities that provide transit service. Details are given in Appendix E.

OPERATING CHARACTERISTICS

Ridership

More than half a billion passengers were carried in 1985 by the public transit systems in the study area, as shown in Table 2. The TTC accounted for over 83% of the total, the HSR for nearly 6%, GO Transit for 5%, Mississauga Transit for nearly 3%, and Brampton Transit for nearly 1%. Each of the 12 other systems carried under 1% of the passengers, and together they accounted for less than 3% of total ridership. Thus the vast majority of the riders are being carried by the TTC and a few other operators.

TABLE 2

OPERATING CHARACTERISTICS OF TRANSIT SYSTEMS IN THE STUDY AREA, 1985

Transit System	Passengers[1]		Revenue Vehicle Km		Employees[2]	
	000	%	000 Km	%	Number	%
Toronto Transit Commission	432,160	83.21	185,919	78.73	9,109	74.65
Hamilton Street Railway	29,323	5.64	13,414	5.68	787	6.45
GO Transit[3]	25,858	4.98	15,713[4]	6.65	1,333	10.92 [5]
Mississauga	13,900	2.68	8,387	3.55	431	3.53
Brampton	4,588	0.88	3,159	1.34	123	1.01
Oshawa	3,678	0.71	2,003	0.85	98	0.80
Burlington	2,324	0.45	1,948	0.83	78	0.64
Oakville	2,281	0.44	1,609	0.68	77	0.63
Markham	1,904	0.37	1,393	0.59	44	0.36
Vaughan	1,263	0.24	634	0.27	14	0.12
Pickering	605	0.12	713	0.30	43	0.35
Newmarket	396	0.08	263	0.11	13	0.11
Ajax	336	0.06	174	0.07	9	0.07
Whitby	262	0.05	326	0.14	15	0.13
Richmond Hill	226	0.04	276	0.12	14	0.12
Milton	164	0.03	125	0.05	9	0.07
Aurora	91[6]	0.02	85	0.04	5	0.04
TOTAL	519,359	100.00	236,141	100.00	12,202	100.00

(1) Initial board passengers paying full fare, reduced fare or free fare, excludes all transfer rides and charter rides.
(2) Full time and part time employees, municipal staff or contractor's staff.
(3) GO figures are for fiscal year ending March 31/86; all other figures on table are for 1985 calendar year.
(4) GO figure is actually "Total Vehicle Km", which has traditionally approximated "Revenue Vehicle Km".
(5) GO figure represents all staff as at March 31/86. This includes 730 GO employees and 603 workers involved in services operated for GO under contract.
(6) Aurora passengers not available. Figure was calculated from "Weekday Ridership Profile" as obtained from Travelways, and adjusted for weekends and holidays by TAG.

Sources: 1985 Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association, for municipal systems.
GO Transit Annual Report for year ending March 31/86 for GO system.

The change in operating characteristics since 1981 is given in Appendix F. The figures show that total annual ridership increased by nearly 10% over the 4 year period, with the TTC accounting for 82% of the growth. GO Transit and 11 of the 15 other systems showed greater percentage increases than the TTC, as might be expected since they are serving growth areas and are also building on a much smaller base. As a result, the TTC's share of the total dropped slightly from 83.3% to 83.2% over the period.

Total ridership in the study area on a typical weekday in 1985 is estimated at approximately 1,800,000 but this, of course, includes trips in both directions, i.e., both the trip to the destination and the return trip. The number of **people** riding transit is therefore much less, but it's still more than half the above figure, because an appreciable number go by transit and come back another way or vice versa. Accordingly, it is estimated that somewhat over a million people use transit in the GTA one or more times on a typical weekday, equal to about 25% of the resident population. The potential for expanding the role of transit is thus very great.

Revenue Vehicle Kilometers

Table 2 also shows another measure of the service provided: the total distance traveled in 1985 by all vehicles while in revenue service. The operators' shares differ from those given for ridership because they are affected by the size and loading of the vehicles and the lengths of the routes. The change since 1981 is again given in Appendix F. In this case the TTC accounted for over 90% of the increase, which raised its share of the total from just under 78% to nearly 79% over the period.

The figures show once more that the majority of the service is being provided by a small minority of the operators.

Staff

Together, the 17 transit systems in the area had over 12,000 full and part time employees in 1985 (Table 2). 75% of them worked for the TTC, 14% for all the other municipal systems, and 11% for GO. Transit is thus a major employer, and accounts for a significant share of total municipal employment in the area.

FINANCIAL CHARACTERISTICS

Operating Expenditures, Revenues and Subsidies

The key financial figures for the 17 systems in 1985 are shown in Table 3. The revenue to expenditure ratios vary greatly, as would be expected in systems so vastly different in size and service area density, and range from 68% for the TTC and 61% for GO Transit down to 20% for Whitby Transit. The ratio for the area as a whole is 65%, reflecting the weight of the high TTC ratio in the overall average.

The change in financial characteristics since 1981 is given in Appendix F. The figures indicate that the overall revenue to expenditure ratio increased slightly by nearly half a percentage point over the 4 years due to improved financial performance of GO Transit and most of the municipal systems, while the TTC's ratio dropped by one percentage point over the period.

Thus the overall ratio of subsidy to expenditure in the study area has shown a slight decline. In absolute terms, however, the annual operating subsidies have risen from $152 million in 1981 to $214 million in 1985, an increase of $62 million or 41% in current dollars. In constant 1985 dollars, the real increase is considerably less but still amounts to $19 million or 10%. The increase in subsidies is discussed more fully in Chapter 4.

Capital Expenditures and Subsidies

It is the general intent of the province's capital subsidy program that capital costs be borne entirely by the province and the municipalities, and not partially by transit users through the farebox.

Capital costs for the study area in 1985 are analyzed in Appendix G. The figures show a total capital expenditure of $222 million, $176 million borne by provincial subsidies and $46 million by municipal subsidies. The TTC accounted for 84% of the $222 million.

The combined total of operating and capital subsidies for public transit in the study area therefore came to $436 million in 1985.

TABLE 3

OPERATING EXPENDITURES, REVENUES AND SUBSIDIES OF TRANSIT SYSTEMS IN THE STUDY AREA, 1985

Transit System	Total Operating Expenditure		Total Operating Revenue		Operating Subsidies				Revenue to Expenditure Ratio	Total Operating Cost Per Passenger[2]
					Municipal		Provincial[1]			
	$000	%	$000	%	$000	%	$000	%	%	$
Toronto Transit Commission	429,686	71.17	291,695	74.87	68,420	75.63	69,571	56.26	67.9	0.99
Hamilton Street Railway	38,812	6.43	19,184	4.92	11,851	13.10	7,777	6.29	49.4	1.32
GO Transit[3]	93,356[4]	15.46	57,166	14.67	0	0.00	36,190	29.27	61.2	3.61
Mississauga	18,664	3.09	9,877	2.54	4,291	4.74	4,496	3.64	52.9	1.34
Brampton	6,140	1.02	3,532	0.91	1,493	1.65	1,115	0.90	57.5	1.22
Oshawa[5]	4,125	0.68	2,236	0.57	961	1.06	928	0.75	54.2	1.12
Burlington	3,174	0.53	1,587	0.41	837	0.93	750	0.61	50.0	1.35
Oakville	2,940	0.49	1,432	0.37	765	0.85	743	0.60	48.7	1.27
Markham	2,392	0.40	1,211	0.31	463	0.51	718	0.58	50.6	1.26
Vaughan	1,058	0.17	574	0.15	121	0.13	363	0.29	54.3	0.84
Pickering	1,267	0.21	423	0.11	463	0.51	381	0.31	33.4	2.09
Newmarket	485	0.08	173	0.04	176	0.20	136	0.11	35.7	1.23
Ajax	296	0.05	153	0.04	38	0.04	105	0.08	51.7	0.88
Whitby	466	0.08	95	0.02	226	0.25	145	0.12	20.4	1.78
Richmond Hill	467	0.08	152	0.04	184	0.20	131	0.11	32.5	2.06
Milton	242	0.04	67	0.02	107	0.12	68	0.05	27.7	1.48
Aurora	143	0.02	30	0.01	70	0.08	43	0.03	21.0	1.57[6]
TOTAL	603,713	100.00	389,587	100.00	90,466	100.00	123,660	100.00	64.5	1.16

(1) Excluding audit adjustments.
(2) Total operating cost is often less than total operating expenditure as it excludes depreciation, interest, expenses associated with the operation of school buses in school contract work, expenses associated with interurban charter operations and expenses associated with work performed for others.
(3) GO expenditure and revenue figures are for the fiscal year ending March 31/86; all other figures on the table are for the 1985 calendar year.
(4) Excludes leases, rentals and user charges.
(5) Excludes expenditures and revenues due to a contract for maintenance of GO Transit vehicles.
(6) Aurora passengers were estimated by TAG, based on a "Weekday Ridership Profile" obtained from Travelways and adjusted for weekends and holidays.

Sources: 1985 Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association, for municipal systems (expenditure, revenue and subsidy figures taken from "Overall Financial Summary").
GO Transit Annual Report for year ending March 31/86 for GO system.

FARE STRUCTURES

Fares account for approximately 96% of the transit revenue, with the remaining revenue coming from advertising, charter services, etc. The municipal transit systems in the study area all have a flat fare regardless of distance traveled, while GO Transit fares are based on distance zones. The fare structures of the 17 systems are compared in Appendix H.

The individual fare structures generally have lower fares for children, students and senior citizens than for adults, but the actual fares, the discount rates, and the eligibility for discount fares vary from system to system. Seven of the systems offer a monthly pass, and 12 of the systems sell multi-ticket or multi-token packets priced between the single ticket fare and the monthly pass, but again the rates and discounts vary from one system to another.

The municipal systems generally require a ticket, token or the exact cash fare on surface vehicles, while GO bus drivers sell tickets and give change on most routes. (The exception to this practice involves two GO routes which offer a local type of service from Richmond Hill along Yonge Street and Bayview Avenue to the Finch subway station; for these routes an exact cash fare is required. These two routes are discussed in more detail below under "Fare Integration and Service Coordination".) Mississauga Transit drivers will give a receipt for overpayment which can be sent in for a refund.

The overall fare picture is thus a confusing hodgepodge which treats riders differently from system to system. It is clear that rationalization of the separate fare structures will be one of the more difficult tasks associated with fare integration in the study area.

THE OVERALL DEVELOPMENT PATTERN

The pattern of development in the GTA has become multi-centred due to decentralization in recent decades, with a hierarchy of urban and suburban centres and sub-centres giving form to a growing conurbation that now stretches from beyond Oshawa on the east to beyond Hamilton on the west.

The central core is downtown Toronto, one of the fastest growing and most vital central business districts on the continent. Downtown Hamilton, the core of another long-established city, provides a strong focus at the western end of the

GTA. Complementing these two historical cores are a number of growing sub-centres, each planned as the core of a large suburban area, with a number of them located where they can become inter-modal transportation "gateways" linking the suburban and urban parts of the conurbation together. Major city centres are developing near the terminals of the TTC subway/LRT system in North York, Scarborough and Etobicoke, and near the juncture of Highways 403 and 10 in central Mississauga; other important sub-centres will be in Burlington, Oakville, Brampton, Vaughan, Markham, Pickering and Oshawa.

Most of these sub-centres will become the focus of major job concentrations which can be served well by transit, but in spite of this a major proportion of all suburban jobs will continue to be widely dispersed and difficult to serve.

PRESENT CROSS-BOUNDARY SERVICES

The following description of existing cross-boundary services is based on information provided by each of the transit operators involved.

GO TRANSIT ROUTES

Map 2 depicts GO Transit rail and bus routes.

Rail Routes

GO Transit has 7 rail routes radiating from Union Station and terminating at the following locations:

- Pickering
- Stouffville
- Richmond Hill
- Bradford
- Georgetown
- Milton
- Oakville (with limited peak period service to Hamilton)

GO Transit owns all of the vehicles and maintenance facilities for its train services but contracts operations. CN Rail operates all of the rail services with the exception of the Milton route which is operated by CP Rail.

MAP 2

GO Transit Routes

RAIL

BUS

T.T.C. SUBWAY AND LRT STATIONS

NOT TO SCALE

TRANSIT ADVISORY GROUP JUNE 1987

Bus Routes

GO Transit also provides inter-regional bus services in 6 corridors as follows:

- the lakeshore east corridor with bus routes connecting downtown Toronto and the Yorkdale subway terminal to Bowmanville in the east;
- the Toronto-Uxbridge corridor with routes connecting downtown Toronto and the Scarborough Town Centre to Uxbridge;
- the Toronto-Barrie-Sutton corridor with bus services connecting the Yorkdale subway terminal to Newmarket and Sutton, and the Finch subway terminal to Newmarket, with connections at Newmarket to Barrie;
- the Toronto-Guelph corridor with routes from the Yorkdale and York Mills subway terminals to Guelph;
- the Toronto-Milton corridor with bus routes connecting the York Mills and Yorkdale subway terminals to Milton;
- the lakeshore west corridor with bus services connecting downtown Toronto to Hamilton.

GO Transit owns and maintains all of its bus fleet, and operates bus services in the Toronto-Uxbridge, Toronto-Milton and Toronto-Barrie-Sutton corridors. Bus operations in the other corridors are currently contracted to Gray Coach Lines or Charterways. Charterways operates the Oshawa-Bowmanville segment of the lakeshore east corridor, and Gray Coach operates all the remaining routes.

The contracting of bus operations is gradually being phased out, however, and current plans call for GO to take over the routes now contracted to Gray Coach by the end of 1989.

GO Transit operations are primarily intended to serve the long distance cross-boundary commuter market, as opposed to local municipal markets. A number of routes pick up and drop off passengers within the service areas of municipal operators, however. For example, GO train routes both pick up and drop off passengers within Metro. This has the effect of providing a Metro service that is subsidized 100% by the province. To put it into perspective, Table 4 shows the proportions of ridership being both picked up and dropped off within Metro in 1986.

TABLE 4

PROPORTIONS OF GO RAIL RIDERS
BEING BOTH PICKED UP AND DROPPED OFF
WITHIN METROPOLITAN TORONTO, MAY 1986

GO Rail Line	Approximate Total Ridership Both Ways	Approximate % Both Picked up and Dropped off Within Metro
Lakeshore West	23,100	8.5
Lakeshore East	18,200	42.5
Georgetown	5,900	19.4
Milton	5,200	3.3
Richmond Hill	2,500	51.1
Bradford	800	0.0
Stouffville	1,300	38.5
Total	57,000	22.5

Source: Ministry of Transportation Transit Office and GO Transit. Counts taken May 13/14/21, 1986.

It is not known to what extent these riders have been attracted from the TTC, as opposed to being attracted from their cars. To the extent that they have been attracted from the TTC during rush hour, they have reduced the peak load of the TTC by increasing that of GO Transit.

The picking up and dropping off of passengers within a municipality's transit service area also occurs outside Metro and, as is discussed in more detail under "Fare Integration and Service Coordination", a number of municipal operators have encouraged GO to operate local types of services for reasons of coordination and cost-efficiency.

For example, GO Transit operates 2 bus routes which offer a local type of service from Richmond Hill along Yonge Street and Bayview Avenue to the Finch subway station. These two GO routes are operated by agreement with the Towns of Markham, Vaughan and Richmond Hill, and permit transfers to and from these systems. As is the case for Mississauga, Brampton and Markham Transit routes, the two GO bus services operate closed-door within Metro. (The two GO routes

are discussed in more detail below under "Fare Integration and Service Coordination").

INTER-REGIONAL ROUTES OPERATED BY MUNICIPAL TRANSIT SYSTEMS

In addition to GO Transit routes, there are a number of inter-regional cross-boundary routes established by municipal transit operators. These are shown on Map 3.

These routes include routes crossing the boundary between Metropolitan Toronto and the Regions of Peel and York, and a route crossing the boundary between Hamilton-Wentworth and Halton.

In considering these routes, it is important to remember that they serve riders going in both directions, and that outbound commuting is becoming more important as employment grows in the outer regions. Outbound work trips are generally very difficult to serve well by transit, however, because their destinations are too dispersed; the outbound modal split is thus appreciably lower than the inbound, and the potential for raising it is considerable.

TTC Routes Extending Outside Metro

The TTC operates 8 routes into municipalities outside Metro (see Map 3). Seven of these routes cross the boundary between Metro and York Region, with 3 running into Vaughan and the other 4 running into Markham. These 7 routes are all operated under contract to the municipality concerned, which allows them to operate on an "open-door" basis, both picking up and dropping off passengers in Vaughan and Markham.

The eighth route runs into Pearson International Airport and the Malton area of Mississauga.* Like the routes into Vaughan and Markham, it is operated on an open-door basis within Mississauga. All 8 routes require payment of the full additional fare of the other transit system beyond Metro's boundary; this gives

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*At the time of writing, there was no contract between Mississauga Transit and the TTC for this route. However, contract discussions were initiated some time ago by the Ministry of Transportation, and the route was established subject to the eventual attainment of an agreement. Draft agreements have been discussed but must still be finalized and signed.

full transfer privileges on the other system, of course.*

As is evident on Map 3, three of these routes do not extend very far into the neighbouring municipalities. While there are good reasons for this, including the pattern of development and the location of the Parkway Belt, it means that the second fare does not provide much of an additional ride unless use is made of the transfer privilege.

Extending a route into the adjacent municipality is intended to provide better service than terminating it at the boundary. However, there is an indication that a significant number of cross-boundary travelers are choosing to walk to or from the boundary, rather than pay the second fare. This category of traveler includes both Metro residents and non-Metro residents who work outside their own municipalities and either live or work close to the boundary.

As an indication of the magnitude of this phenomenon, it has been estimated that approximately 3,000 Markham residents walk to Steeles Avenue each day to avoid paying the extra fare.** The total figure for people who walk to avoid paying an extra fare is probably considerably larger than this as it would include Mississauga and Vaughan residents who work in Metro, and Metro residents who work in Mississauga, Vaughan and Markham.***

Although figures are not available, it was noted in a submission from the Airport Manager at Pearson International Airport that a large number of the airport's employees reside in Metro, and that a significant proportion of these choose to exit TTC buses which run to the airport at the boundary, rather than paying the second fare to go an additional stop to the airport. This involves some danger, for there is no sidewalk over part of the route.

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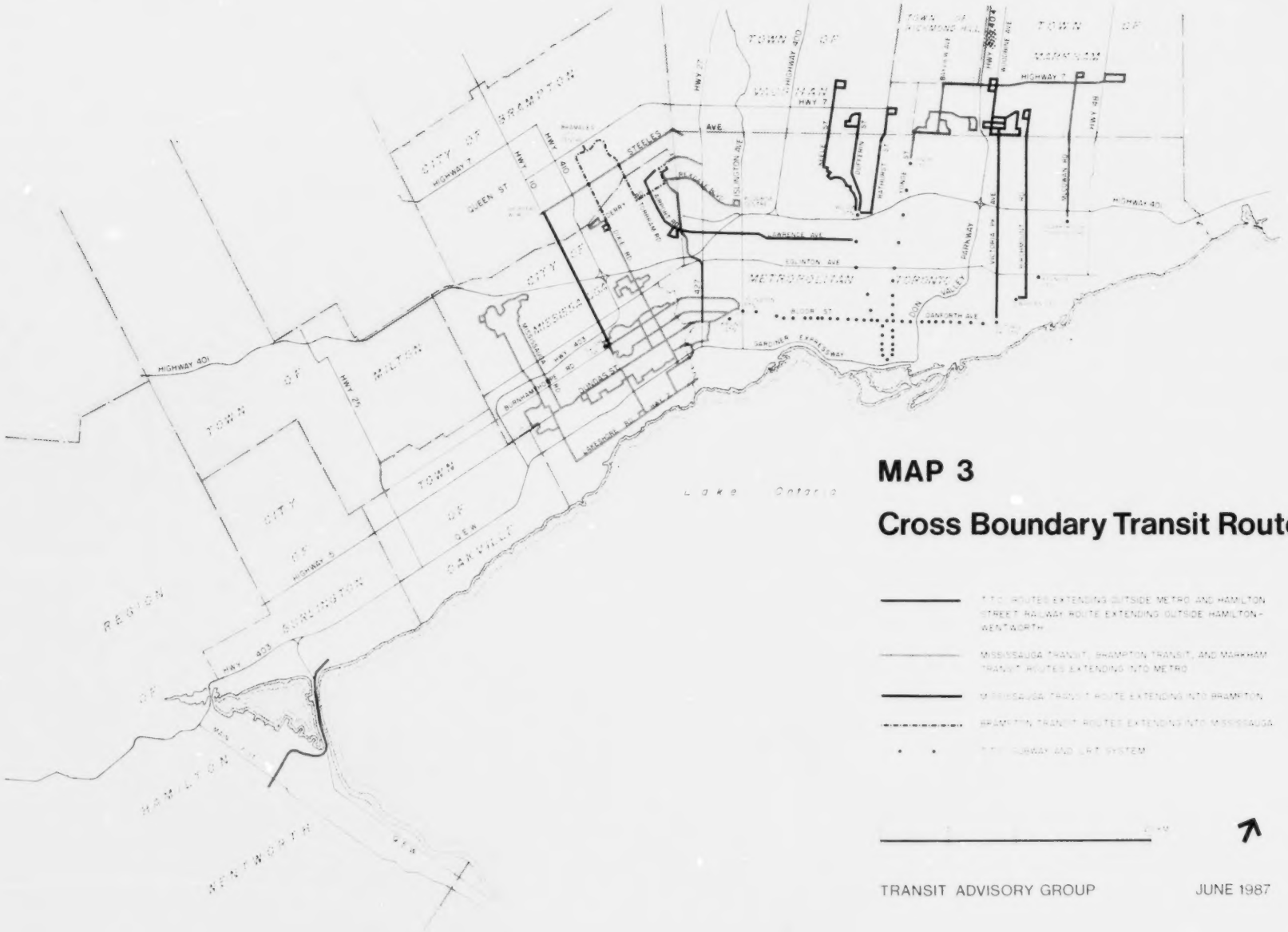
*It is understood that Markham Transit has negotiated an agreement with the TTC to extend 3 additional TTC routes into Markham: one on Don Mills Road and Leslie Street; one on Kennedy Road; and one on McCowan Road, replacing a Markham Transit route to the Scarborough City Centre (see page 37). At the time of writing, however, details of these routes were not available and, consequently, they are not depicted on Map 3. These new routes still require payment of the full Markham Transit fare beyond the Metro boundary, which gives full transfer privileges on Markham Transit.

**DeLCan, "Markham Transit Study, Interim Report #8", page 20, March 1987.

***Pickering is not discussed here as there are no municipal cross-boundary routes between Metro and Pickering, and people who walk across the boundary would not be doing so to avoid paying a double fare on a cross-boundary route.



MAP 3

Cross Boundary Transit Routes

- TTC ROUTES EXTENDING OUTSIDE METRO AND HAMILTON STREET RAILWAY ROUTE EXTENDING OUTSIDE HAMILTON-WENTWORTH
- MISSISSAUGA TRANSIT, BRAMPTON TRANSIT, AND MARKHAM TRANSIT ROUTES EXTENDING INTO METRO
- MISSISSAUGA TRANSIT ROUTE EXTENDING INTO BRAMPTON
- BRAMPTON TRANSIT ROUTES EXTENDING INTO MISSISSAUGA
- TTC SUBWAY AND LRT SYSTEM

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Mississauga Routes Into Metro

Mississauga Transit operates 16 routes in 8 corridors into Metro. Five of these corridors, accounting for eleven routes, go to the Islington subway station. A sixth corridor, accounting for 2 routes, goes to the Long Branch TTC loop in southern Etobicoke. The seventh corridor connects 2 routes to Rexdale Boulevard and Islington Avenue in northern Etobicoke, while the eighth has one route going to the Etobicoke General Hospital and Humber College.

All of the Mississauga Transit routes into Metro operate on a "closed-door" basis. That is, there is no service for passengers whose entire ride is within Metro; Mississauga Transit buses eastbound within Metro will not pick up passengers east of the Mississauga-Metro boundary, and westbound from Metro they will only pick up passengers destined for Mississauga. This closed-door operation recognizes the TTC monopoly of local service within Metro.

Because of the closed-door operation, no additional fare is paid at the Metro boundary. To board a TTC vehicle, however, the full TTC fare must be paid. The closed-door policy also necessitates separating Mississauga Transit buses from TTC buses at the subway station, since TTC bus riders can transfer directly to the subway.

Markham Transit Routes Into Metro

Markham Transit operates 3 routes into Metro. Two of these go to the Finch subway station and the third goes to the Scarborough City Centre LRT terminal.* These three routes operate within Metro under the closed-door policy described above; no additional fare is paid at the Metro boundary and a full TTC fare is required to board TTC vehicles in Metro.

Brampton Transit Route Into Metro

Brampton Transit operates one route into Metro. This route commences at Shoppers World Brampton and goes easterly along Steeles Avenue to a TTC loop at Humberline Drive in northern Etobicoke. As is the case for Mississauga and Markham transit routes, the Brampton route operates under a closed-door policy within Metro.

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*This third route is being replaced by an extension of a TTC route. See footnote on page 34.

Vaughan Transit

Vaughan Transit does not operate any routes into Metro but it does operate two routes in the Woodbridge area and one in the Thornhill area which terminate at Steeles Avenue, where they connect with TTC loops. The two Woodbridge routes terminate at a bus loop at Steeles Avenue and Islington, while the Thornhill route terminates at Steeles Avenue and Yonge Street. Of course, passengers on Vaughan transit have to pay the full TTC fare to transfer to TTC vehicles. However, a Vaughan free transfer good for one hour can be used on another Vaughan route after paying for an interconnecting TTC ride along Steeles Avenue.

Pickering Transit

Pickering Transit does not currently operate any routes into Metro. However, in 1985 a route to Scarborough College was tested to examine the feasibility of cross-boundary routes. The route had relatively low ridership and a very low revenue to cost ratio and it was thus discontinued at the end of the testing period.

Hamilton Street Railway Route Into Halton

In addition to the inter-regional routes crossing the Metro boundary there is also an inter-regional route between the Regions of Hamilton-Wentworth and Halton, operated by the HSR. This route commences in Hamilton at a traffic circle on Kenilworth Avenue south of King Street and goes to the Burlington Terminal at Elizabeth Street and New Street, via Beach Boulevard. This route operates under an open-door policy in Burlington and no second fare payment is required; free transfer is permitted to and from Burlington transit vehicles. (The nature of this arrangement is discussed in more detail under "Fare Integration and Service Coordination".)

INTER-MUNICIPAL ROUTES WITHIN A REGION

To date, the only routes of this nature cross the local municipal boundary between Mississauga and Brampton within the Region of Peel.

Brampton Transit Routes Into Mississauga

Brampton Transit operates 2 routes into Mississauga. Both routes commence at the Bramalea City Centre. The first of these travels southerly on Dixie Road to

Derry Road, while the second goes to Westwood Mall in Malton via Torbram Road.

Both these routes operate under an open-door policy in Mississauga, and no second fare payment is required; Mississauga Transit honours Brampton transfers, and Brampton Transit honours Mississauga transfers.

Mississauga Transit Route Into Brampton

Mississauga Transit operates one route into Brampton, commencing at Square One and terminating at Shoppers World Brampton. As is the case for the Brampton Transit routes into Mississauga, this route operates under an open-door policy in Brampton with free transfers to and from Brampton Transit vehicles.

The details of the agreement between Mississauga Transit and Brampton Transit are discussed below under "Fare Integration and Service Coordination".

CROSS BOUNDARY RIDERSHIP TRENDS

Considerable progress has been made in the establishment of cross-boundary transit routes.

Table 5 shows cross-boundary ridership in both directions and modal split across the Metro boundary for 1975 and 1985. As indicated in the table, cross-boundary transit ridership has grown faster than total cross-boundary travel, resulting in a moderate improvement in modal split across Metro's boundaries.

In spite of the improvement in modal split, however, transit riders still account for only 10.8% of all person trips across the Metro boundary.

Similarly, cross boundary ridership is a relatively small but increasing component of total transit ridership. Table 6 compares ridership across the Metro boundary to that of the transit operators in Metro, Durham, York, and Peel, for 1975 and 1985. Current ridership across the Metro boundary is estimated to amount to approximately 9% of total ridership in Metro, Durham, York and Peel.

Special Cross-Boundary Subsidies

Special cross-boundary subsidies paid to municipalities totalled $1,126,000 in 1985, which amounts to only 1.3% of the total provincial operating subsidies paid

TABLE 5

CORDON COUNTS ACROSS THE METRO BOUNDARY
7 A.M. - 7 P.M. TYPICAL WEEKDAY TWO-WAY TOTALS

	Total Person Trips #	Municipal Transit and GO Bus #	GO Rail #	Total Transit Trips #	Modal Split %
1975	694,511	49,452	16,016	65,468	9.4
1985	1,236,543	94,267	39,509	133,776	10.8
% Increase	78%	91%	147%	104%	15%

Source: "Metro Cordon Count Program - 1985," Metropolitan Toronto Planning Department, Exhibit 37.

TABLE 6

TRANSIT RIDERSHIP ACROSS THE METRO BOUNDARY
AS A PERCENTAGE OF TOTAL RIDERSHIP IN METRO,
DURHAM, YORK AND PEEL, 1975 AND 1985

	Municipal Transit and GO Bus	Total Transit
1975	4.2%	5.4%
1985	6.1%	8.7%

Notes: 1) Total ridership includes annual calendar year totals for the municipal systems in Metro, Durham, York and Peel and annual fiscal year totals for the entire GO Transit system. This tends to understate the percentage share crossing the Metro boundary. Nevertheless, the percentage figures are considered to be indicative of the relative order of magnitude.

2) Cross-boundary ridership figures are estimated based on cordon counts across the Metro boundary from 7 a.m. to 7 p.m. for a typical weekday two-way travel. To translate cordon counts into annual ridership figures, they were first multiplied by a factor of 1.1 to get 24 hour figures, and then multiplied by a factor of 286 to get annual estimates.

to municipal transit systems in the study area. In comparison, GO Transit received almost $47 million in operating subsidies for the fiscal year ending March 31, 1986. Of course, considerably more would be needed for special cross-boundary subsidies without GO Transit operations.

These figures should be viewed in light of the role that cross-boundary ridership plays in connecting residential development on one side of the boundary with industrial/commercial development on the other. The cross-boundary subsidy costs are only a small fraction of the construction costs, assessed values and gross economic product of the developments involved.

FARE INTEGRATION AND SERVICE COORDINATION

There are currently a number of fare integration and service coordination activities in the study area. These activities involve agreements between GO Transit and municipal transit operators and agreements involving only municipal operators.

Fare Integration and Service Coordination Involving GO Rail Services

GO Transit has entered agreements with a number of municipal transit operators to pay a subsidy equal to 75% of the local adult fare for all passengers carried free (or at a discount) to and from the GO rail system. To date, agreements have been signed with Brampton Transit, Burlington Transit, Mississauga Transit, Oakville Transit and Pickering Transit.

With the exception of Mississauga Transit, the municipal systems make no additional charge on top of the GO fare; the GO ticket includes free local bus service to and from GO rail stations. Mississauga Transit felt it was unable to bear the remaining 25% fare loss and it imposed a surcharge to cover its share of the costs. This arrangement requires the purchase of a Mississauga Transit sticker to be attached to the GO monthly pass; the special sticker is currently sold for $8 per month.

These fare integration schemes also involve a considerable level of service coordination, and all the municipalities involved have scheduled buses to service the GO train stations.

The most notable omission from the above agreements is, of course, the lack of any such arrangement between GO rail and the TTC. TAG recognized this as a serious gap early in the study and recommended that the Minister initiate a pilot study of GO/TTC fare integration at Union Station, which he has since done. This matter is discussed more fully in chapter 4.

Fare Integration and Service Coordination Involving GO Bus Services

The fare integration agreements involving GO rail services have not been extended to GO bus routes. There are a number of fare integration and service coordination activities involving GO bus services, however. These were generally established to eliminate the duplication of services between GO and municipal operators, thereby reducing overall transit costs.

As noted previously under "Present Cross Boundary Services", GO currently operates 2 bus routes which offer a local type of service from Richmond Hill along Yonge Street and Bayview Avenue to the Finch subway terminal. These two services are operated by agreement with the Towns of Richmond Hill, Markham and Vaughan. For passengers on Markham Transit and Richmond Hill Transit, transfers are free to and from GO buses for both the Yonge Street and Bayview Avenue GO routes. (Fares for Markham Transit, Richmond Hill Transit and the two GO routes are approximately equal). In the case of Vaughan Transit, riders may transfer free from the Yonge Street GO bus to Vaughan Transit vehicles but Vaughan Transit riders must pay a premium to board the GO bus equal to the difference in fares between the two systems.

This arrangement is established as a straight transfer program with no revenue sharing or redistribution of fares.

Burlington Transit has worked out a similar agreement with GO Transit. In order to eliminate duplication of service along Highway 2 in Burlington, and to reduce costs to Burlington Transit, GO Transit accepts Burlington Transit transfers along the Burlington portion of its Highway 2 Lakeshore route for rides that begin and end in Burlington. Burlington Transit pays GO the difference between the Burlington fare and the higher GO fare for each ride taken. This arrangement is similar to that discussed above between Vaughan Transit and GO Transit, except in the case of Vaughan, the riders pay the fare differential directly.

Ajax Transit has established a similar arrangement with GO Transit involving a GO bus route which serves a part of the Town not serviced by Ajax Transit. In this case, a joint monthly pass is utilized which allows travel on both Ajax Transit and on the GO bus route within the Town limits.

These forms of fare integration and service coordination involving GO bus services have generally been of benefit both to GO Transit and to the municipalities involved. For GO, the integration has resulted in an increase in ridership and revenues on existing routes. For the municipalities involved, a saving in costs has been made possible by the schemes because the municipal system doesn't have to provide the service.

Municipal Fare Integration and Service Coordination

In addition to arrangements with GO Transit, a number of municipalities have established fare integration and service coordination between one another.

As previously mentioned, the Hamilton Street Railway operates a bus route into Burlington under an open door policy, with free transfers to and from Burlington Transit vehicles. This arrangement is established as a straight transfer program with no revenue sharing or redistribution of fares. Hence, a Burlington rider who transfers to the HSR only pays the Burlington fare; the HSR collects a single HSR fare on the return trip.

Burlington Transit and Oakville Transit have established a similar transfer arrangement. Although there are no cross boundary routes between Burlington and Oakville, buses meet at the boundary, and free transfers are permitted between the two systems.

It is thus possible for an Oakville rider to travel to Hamilton-Wentworth by paying a single Oakville Transit fare, or for an HSR rider to travel to Oakville on a single HSR fare. In practice, however, the vast majority of transit riders between Oakville and Hamilton use GO Transit because of the considerable time savings offered by GO routes.

Similar agreements also exist between Mississauga Transit and Brampton Transit, and between Markham Transit and Richmond Hill Transit.

As noted previously, Mississauga Transit operates one route into Brampton while Brampton Transit operates two routes into Mississauga. Free transfers are permitted between the two systems and there is no revenue sharing or redistribution of fares.

Although there are no municipal cross-boundary routes between Richmond Hill and Markham, free transfers between the two systems are permitted along Highway 7, a common boundary for the two municipalities. Again, this is a straight transfer agreement with no revenue sharing.

PASSENGER CHARACTERISTICS

Several transportation and transit surveys have been conducted in the study area by transit operators and municipalities. The results of these surveys provide a picture of the socio-economic characteristics of transit riders. A number of the surveys are discussed in Appendix I. The key findings are presented here.

When reviewed collectively, the surveys provide two major findings. First, the socio-economic characteristics of transit patrons vary significantly between the rail and bus modes of transit. Second, there are significant geographical differences in passenger characteristics, particularly between riders who work in the central area of Toronto and those who work elsewhere.

Differences Between Bus and Rail Patrons

A number of surveys have examined the socio-economic characteristics of suburban bus passengers. These surveys indicate that there is a greater tendency for bus patrons to be:

- young adults or teenagers,
- renters rather than homeowners,
- living in multiple unit dwellings,
- earning lower than average personal or household incomes,
- working in lower-paying white collar occupations, particularly clerical, sales and service jobs, and
- without access to a car.

Additionally, even though there are more males than females in the labour force, journey to work surveys indicate that females are approximately twice as likely as males to use bus transit. Of course, these socio-economic characteristics tend to be interrelated. Younger individuals and women are more likely to have lower level white collar jobs which tend to be associated with below average incomes; and lower income households are less able to afford the purchase of a house or a car.

It is also apparent from this analysis that the age-sex distribution of the population can have very important implications for the demand for bus transit. In particular the aging of the "baby boom" has undoubtedly had a positive effect on bus ridership as the baby boom generation moved into adulthood. With the baby boom now moving into middle age, future increases in ridership may be more difficult to attain. Nevertheless, continued population growth in the study area can be expected to temper the impacts of the aging baby boom generation.

The surveys indicate that GO bus riders tend to have similar characteristics to municipal bus riders. In particular, GO surveys indicate that ridership on GO buses decreases as household income increases. Similarly female passengers account for more than 60% of GO bus ridership.

In contrast, ridership on the GO rail system increases as household income increases. GO rail and bus ridership by income category is indicated in Table 7.

Moreover, GO rail passengers are considerably more likely to have access to a car than are bus riders; 72% of the rail passengers and only 51% of the bus passengers indicated that they have a car available.

It is apparent from this analysis that GO rail passengers tend to represent a more advantaged socio-economic group than bus riders.

Distribution of Low Income Groups

A related consideration is the diffusion of low income groups throughout the region, as the population continues to grow. A review of census data indicates that low income groups have grown with general population growth in Metro's suburbs and in the surrounding regions, but at different rates.

TABLE 7

GO TRANSIT RIDERSHIP BY INCOME CATEGORY

Gross Family Income	% of Passengers* rail	bus
less than $20,000	13.2	22.7
$20,000 - $29,999	13.3	18.9
$30,000 - $39,999	16.5	17.6
$40,000 - $50,000	18.0	14.2
greater than $50,000	26.4	15.8

*figures may not add to 100% due to no response on a number of questionnaires.

Source: 1983 GO Train Passenger Survey and 1985 GO Bus Passenger Survey.

TABLE 8

CHANGE IN SIZE OF LOW INCOME GROUPS IN THE TORONTO CMA FROM 1970 to 1980*

	1970 (#)	1980 (#)	Change from 1970 to 1980 (#)	(%)
City of Toronto	144,800	137,320	(-7,480)	(-5.2%)
Rest of Metro	227,660	320,305	92,645	40.7%
Rest of CMA**	82,720	145,305	62,585	75.7%

*The low income groups are defined as individuals age 15 years and over with income, their total income being less than $6,000 in 1980 and the approximate equivalent of $6,000 in 1970. The 1970 figures were related to 1980 figures by changes in the Consumer Price Index for the Toronto CMA. The 1970 income range of less than $3,000 is therefore roughly equivalent to the 1980 income range of less than $6,000. By way of comparison, Statistics Canada's 'Revised Low Income Cut-off 1980' for a single individual was $7,152 in areas of 500,000 population and over; the use of $6,000 as a cut-off is therefore conservative as it counts fewer individuals as having low income.

**Rest of CMA refers to the portion of the Census Metropolitan area outside the Municipality of Metropolitan Toronto. The figures for both 1970 and 1980 are based on the 1970 definition of the CMA for comparability.

Source: Statistics Canada, 1971 and 1981 Censuses.

The change in size of low income groups between 1970 and 1980 is broken down in Table 8.

The figures indicate that the low income groups decreased by 5% in the City of Toronto while they grew by 40% in the rest of Metro and 75% outside Metro. These trends thus show a diffusion throughout the region of those groups which are generally most in need of transit, and particularly of bus transit.

Differences Between Central Area Employees and Those Who Work Elsewhere

A recent Metro employee travel survey indicates that place of work is also an important variable affecting the socio-economic characteristics of transit patrons. Most notably, transit riders who work in the central area tend to have different characteristics from those who work elsewhere in Metro.

In particular, for male passengers there is a significantly larger proportion of professional and managerial occupations represented in central area ridership than is the case for the rest of Metro. Almost 74% of the male transit riders working in the central area are in professional/technical or executive/managerial occupations, whereas less than 27% of the male transit riders in the rest of Metro are in the same occupational categories.

Similarly, while 80% of the female transit riders employed in the central area are in clerical, sales and service occupations, only 63% of the female transit riders employed in the rest of Metro are in these job categories.

Of course, this difference in characteristics reflects a number of variables, including the concentration of white collar jobs and the availability and cost of parking in the central area.

Population characteristics thus influence the propensity to use transit. However, there is no doubt that improvements in service can attract many segments of the population that now travel by car.

SYNOPSIS

In summary, the current transit picture in the GTA is the result of actions taken in response to growing transit needs by the provincial, regional, and local governments and their transit operators. The actions have often been taken

independently with little or no coordination, so parts of the resulting picture are a hodgepodge, with differences evident from system to system.

Although cross-boundary transit services have generally responded fairly well to travelers' needs, with better service usually being provided where the market is dense, it is clear that many outstanding challenges both of coordination and provision will have to be met if the area is to get the transit it requires.

These challenges are considered in Chapter 4.

CHAPTER 4

THE CHALLENGES

The study area has two world class transit systems: the TTC, acknowledged as one of the world's leading urban transit systems; and GO Transit, recognized as among the world's best commuter systems. Most of the other systems in the area would also compare favourably with those of similar size found anywhere else in the world.

Notwithstanding their individual excellence, they are not as well integrated into an area-wide system as is the case in a growing number of major urban centers elsewhere in the world. The fundamental challenge is therefore to preserve and increase the study area's leading role in transit by bringing about the necessary improvements in coordination.

The purpose of this chapter is to take stock of the coordination improvements that have been accomplished to date, and to identify the additional improvements needed to meet the challenge.

This list of needed coordination improvements will in turn be used to help determine the organizational improvements that may be required.

To place the need for more coordination in proper perspective, it is necessary to look ahead at the growth in cross-boundary travel that can be expected in coming years. The next section examines the likely future scenarios.

FUTURE SCENARIOS

POPULATION AND EMPLOYMENT GROWTH

Table 9 provides a summary of the range of population and employment projections for the study area, as prepared by the Transportation Demand Research Office of The Ministry of Transportation. (A more detailed description of these projections is contained in Appendix J.)

TABLE 9

POPULATION AND EMPLOYMENT PROJECTIONS
FOR THE STUDY AREA 1981 - 2011

	Population				Employment			
Year	Low Forecast 000's	Per Cent Increase Over 1981	High Forecast 000's	Per Cent Increase Over 1981	Low Forecast 000's	Per Cent Increase Over 1981	High Forecast 000's	Per Cent Increase Over 1981
1981	3,829		3,829		2,028		2,028	
1991	4,421	15.5	4,421	15.5	2,393	18.0	2,393	18.0
2001	4,671	22.0	5,011	30.9	2,588	27.6	2,801	38.1
2011	4,900	28.0	5,430	41.8	2,741	35.1	3,001	48.0

Source: Transportation Demand Research Office, Ministry of Transportation, October 1986.

Note that current figures for 1985 or 1986 are not given because reliable employment data for the entire study area is not available for these years.

Population

The total study area population is expected to increase from a little over 3.8 million in 1981 to between 4.9 million and 5.4 million by 2011. This represents an increase of between 28% and 42%.

Employment

Employment in the study area is expected to grow somewhat faster, from just over 2.0 million in 1981 to between 2.7 million and 3.0 million by 2011, an increase of between 35% and 48%.

Distribution of the Growth

The bulk of the population growth is expected to occur in York, Peel and Durham, while the greatest share of the employment growth is expected to take place in Metro, followed by Peel and York.

Between them, York, Peel and Durham will likely receive between 74 and 83 per cent of the population growth (depending on which forecast is used) while Metro receives only 5 to 10 per cent.

At the same time Metro is expected to get between 33 and 34 per cent of the employment growth, followed by York with around 22 per cent and Peel with between 21 and 25 per cent (again depending on the forecast). The result of this

imbalance in the distribution of population and employment growth, along with the inevitable tendency for cross-boundary commuting in a large metropolitan area, will be an increase in the number of work trips crossing the Metro boundary. In addition, there is also an imbalance between the kind of jobs and the kind of labour force being added by much of the new development, and this will bring a further increase in the number of cross-boundary work trips. Trips will increase significantly in both directions.

CROSS-BOUNDARY PERSON TRIPS

Person Trips Across the Metro Boundary

The population and employment forecasts are for the six-region study area but trip forecasts are only available from the Transportation Demand Research Office for trips across the Metro boundary, due to insufficient cordon count data on the other regional boundaries. To approximate the study area total, it is estimated that trips across the Metro boundary presently account for roughly 82 per cent of all the inter-regional trips in the study area.

Forecasts of total daily person trips crossing the Metro boundary are summarized in Table 10. (A more detailed description of these projections is given in Appendix J.)

TABLE 10

FORECASTS OF TOTAL DAILY PERSON TRIPS

CROSSING THE METRO BOUNDARY 1985 - 2011

	Low		High	
Year	Total Daily Trips 000's	Per Cent Increase Over 1985	Total Daily Trips 000's	Per Cent Increase Over 1985
1981	1,054		1,054	
1985	1,236		1,236	
1991	1,430	16%	1,430	16%
2001	1,600	29%	1,760	42%
2011	1,740	41%	1,950	58%

Sources: 1981 and 1985 - actual cordon counts of inbound and outbound 7 a.m. - 7 p.m. trips, from the Metro Cordon Count Program, Metropolitan Toronto Planning Department.

1991, 2001, 2011 - forecasts from the Transportation Demand Research Office, Ministry of Transportation, April 1987.

The figures show that the 1985 total of 1.236 million trips a day is expected to grow to between 1.74 and 1.95 million by 2011, an increase of between 41% and

58%. In absolute terms, this means an additional 504,000 to 714,000 trips per day across the Metro boundary.

Map 4 shows the future travel patterns that the Transportation Demand Research Office expects will result from this increase in trips, along with the main residential and employment growth areas in Metro and the adjoining regions that will largely account for the increase. The map indicates that a majority of the trips into Metro will be going to the suburbs rather than downtown, and that travel demand within each of the adjoining regions will increase significantly. The extensive employment growth areas shown outside Metro also indicate that reverse commuting will increase significantly, with more and more Metro residents commuting to jobs in the surrounding regions.

Person Trips Across All Inter-regional Boundaries

If the 82 per cent ratio noted above were to apply to this growth in trips across the Metro boundary, it would imply comparable growth in trips across the other regional boundaries and an increase in the total number of all inter-regional trips in the study area of between 615,000 and 871,000 over the 1985 - 2011 period.

TRANSIT TRIPS ACROSS THE METRO BOUNDARY

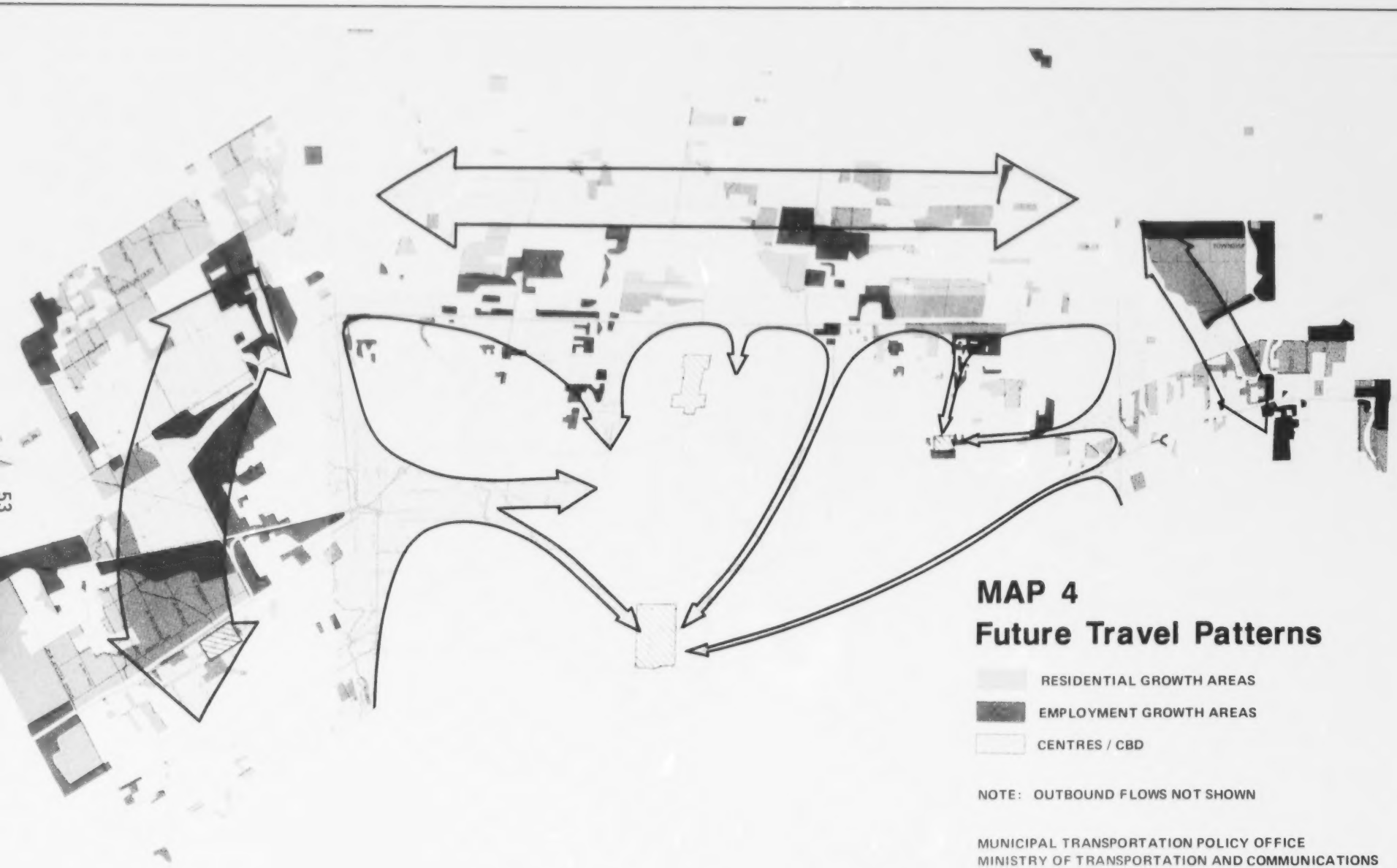
Modal Split

The portion of person trips across the Metro boundary carried by transit - the modal split - was 10.8% in 1985, up from 9.4% in 1975.

The modal split that will be attained in the future is difficult to predict because it will depend on many factors, not the least of these being the amount of transit coordination achieved. To give an idea of the possible increase in transit ridership across the Metro boundary, we will hazard a low and a high forecast of modal split based on different assumptions.

The low forecast is based on a straight-line projection of the 1975 - 1985 increase in modal split noted above. This produces an estimated modal split in 2011 of 14.4%.

The high forecast assumes that the 2011 modal split at the Metro boundary will be the same as that now attained at the "suburban cordon" (which follows the Humber River, Highway 401, and a line in the vicinity of Midland Avenue). This figure was 27.1% in 1985.



MAP 4
Future Travel Patterns

RESIDENTIAL GROWTH AREAS

EMPLOYMENT GROWTH AREAS

CENTRES / CBD

NOTE: OUTBOUND FLOWS NOT SHOWN

MUNICIPAL TRANSPORTATION POLICY OFFICE
MINISTRY OF TRANSPORTATION AND COMMUNICATIONS

JUNE 1987

Applying these modal splits to the person trip forecasts discussed above gives the results shown in Table 11.

TABLE 11

FORECASTS OF TRANSIT TRIPS CROSSING THE METRO BOUNDARY 1985 - 2011

	Total Daily Trips			
	Low Person Trips		High Person Trips	
	Low Modal Split	High Modal Split	Low Modal Split	High Modal Split
1985 Actual	134,000	134,000	134,000	134,000
2011	251,000	472,000	281,000	528,000
Increase absolute	117,000	338,000	147,000	394,000
per cent	87%	252%	109%	294%

The estimated ridership increases range from 117,000 to 394,000 representing percentage increases from 87% to 294%. On these assumptions, therefore, transit trips across the Metro boundary will increase at a considerably faster rate than total trips.

It is important to bear in mind that the rate of increase will depend on the ease of transit travel; that is, on the degree of success in solving the problems of service coordination, fare integration and planning coordination dealt with in this report.* A failure to deal effectively with these problems will result in a lower modal split. This in turn will mean increased pressure on the road system throughout the Region and particularly in Metro Toronto, and increased pressure for the construction of highways and substantial upgrading of Metro arterials and downtown streets. In fact, a number of studies have indicated that it will be impossible to build enough new road lanes to carry the additional travelers by car. Thus the share of these cross-boundary trips carried by transit will have to increase significantly if horrendous traffic jams are to be avoided. The improvements in the coordination of cross-boundary transit services that will be necessary to bring this about are considered below.

*It should be noted that it will be particularly difficult to provide good transit service for outbound or reverse-flow work trips because of the wide dispersion of employment areas in the surrounding regions.

COORDINATION ACCOMPLISHMENTS AND CHALLENGES

We turn now to review the achievements to date and consider the further improvements in coordination that will be needed to attract more commuters to transit. These will be discussed first with regard to service coordination and fare integration, then with regard to planning coordination, and finally with regard to finance. In employing these categories, planning coordination will be considered to apply to strategic planning, and service coordination will be considered to apply to operational planning.

ACCOMPLISHMENTS IN SERVICE COORDINATION AND FARE INTEGRATION

An Extensive System of Cross-Boundary Routes is Now in Operation

These were described in the last chapter. Including GO Transit and the municipal transit systems, there are now over 45 cross-boundary routes and they connect most of the urbanized parts of the study area. Ridership on these routes has been growing faster than total ridership, and now accounts for nearly 9% of all rides in the study area. Even with the freeze that was placed on the special cross-boundary subsidy, two new routes have been added.* In addition there are a number of instances where the routes of two systems interconnect at a border, with reasonably convenient transfer arrangements.

Fare Integration and Service Coordination Have Been Established Between GO Rail and Five of the Municipal Systems

These arrangements have generally increased significantly the numbers who take transit to and from the GO stations, and they have also increased the modal split. One of the five arrangements does not involve full fare integration, however, and it has not been as effective as the others.

There is Also Fare Integration and Service Coordination Between GO Bus Services to Richmond Hill and the Markham, Richmond Hill and Vaughan Systems

GO operates these as local services under agreement with the municipalities, and free transfers are allowed with certain conditions.

Fare Integration and Service Coordination Have Also Been Established Between a Number of the Municipal Systems

Free transfers are now provided between the Hamilton-Wentworth, Burlington

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*Four new routes including the just negotiated TTC routes into Markham. See footnote on page 34.

and Oakville systems; the Mississauga and Brampton systems; and the Markham and Richmond Hill systems.

Reasonably Good Transfer Arrangements Between Different Carriers Have Been or Are Being Worked Out at a Number of Key Stations

Existing examples are at Yorkdale, Finch, and Scarborough Town Centre. A new design has been worked out for Kipling (to bring the Mississauga buses in there instead of Islington), and one is under study for Union Station.

The Hamilton-Wentworth System has brought the Benefits of Regional Transit to a Part-Rural Part-Urban Region without Any Serious Problems

By ensuring that only those with transit service are taxed for it, demands to extend services throughout the region have been avoided, and the system has been kept responsive to those it serves. Services and fares have been integrated and planning is now done on a unified basis.

The Transit Forum Provides a Common Meeting Ground for the Operators

Although it presently excludes the 4 operators in Hamilton-Wentworth and Halton, the Transit Forum is an established arrangement enabling the 13 other operators to air opinions and seek solutions to common problems. The Forum has been useful in discussing a number of operational issues.

Synopsis

The above accomplishments show that a good start has been made on cross-boundary service coordination and fare integration. To place this in perspective, we will now look at the challenges which remain to be faced, both currently and in the future.

CHALLENGES IN SERVICE COORDINATION AND FARE INTEGRATION

Despite the accomplishments, existing arrangements still leave much to be desired. The inadequacies are of two kinds: those that affect the riders directly, and those that affect them indirectly. The former are dealt with first, as they are mentioned in a number of the submissions made to TAG, and are obviously of concern to many riders.

These inadequacies should be viewed against the definition of good transit from the rider's point of view, which is generally characterized as:

- fast
- reliable
- convenient
- safe
- economical
- fairly priced
- frequent
- timely
- comfortable
- clean, and
- quiet

This is the kind of transit that is likely to attract the greatest number of users. It doesn't recognize artificial boundaries, political kingdoms or transit empires. Jurisdictional squabbles cannot be allowed to take precedence over user needs if the challenges are to be met.

The challenges of direct concern to the cross-boundary riders are discussed below. Many are but the reverse side of the respective accomplishments discussed above, reflecting the fact that many of these accomplishments are ad hoc solutions that don't solve all aspects of the problem.

Challenges that Directly Affect the Riders

The Full Second Fare Charged For Short Trips Beyond The Border

This is obviously an irritant to many riders, for it causes thousands of people to walk the extra distance rather than pay the extra fare. Particularly in bad weather, this full extra fare imposed by an artificial boundary must seem very unfair to those affected. As noted in Chapter 3, a recent study estimated that some 3,000 Markham residents trudge the extra distance beyond the Metro boundary on a typical week day. A similar situation exists with regard to the TTC route that serves Pearson International Airport, where the airport is only one stop from the boundary and many airport workers walk to avoid the second fare. The total number who walk to avoid an extra fare is probably considerably greater than the 3,000 figure above, for it would include Mississauga and Vaughan residents who work in Metro, and Metro residents who work in Mississauga, Vaughan and Markham.

It is not known how many other travelers have been turned off transit entirely by this situation but the number is probably significant. Moreover, the forecasts indicate that the number of relatively short cross-boundary trips will increase significantly in the future. This makes it essential to find a better way of handling them if transit is to attract a larger share.

Routes That Are Too Round-About

Cross-boundary trips from suburb to suburb often involve one, two or more transfers because the routes are laid out to feed the subway rather than serve such trips. More direct routes should become feasible as trips of this kind increase in number, but they will require coordination between the adjacent operators. In the meantime, present riders find the journeys time-consuming and inconvenient, and many of the travelers who have a choice take the car instead.

Closed Door Operation of Buses From Other Systems Running Into Metro

This involves duplication unless the buses are full, and it is frustrating to Metro passengers waiting at a TTC stop who see buses go by that don't stop.

Overcrowding Which Could Be Relieved By Making Use of Unused Capacity On Another Carrier

The most notable example is the capacity on a number of GO rail lines within Metro which could be used to relieve crowding on the subway system but are not because the TTC-GO coordination is lacking. The crowded subway riders may not be aware of the relief available, but that does not make the crowding or the delays due to full trains any more tolerable.

Routes That Terminate At The Border Thus Requiring An Unnecessary Transfer

Since most passengers are destined beyond the border, they would prefer a cross-boundary route that avoids the unnecessary transfer.

Lack Of A TTC Transfer Valid After An Intervening Ride on GO Transit

A trip by TTC, GO Transit, then the TTC again requires 2 TTC fares (as well as the GO fare), whereas one TTC fare would do if the intervening leg were on the TTC. Vaughan Transit has a transfer with a time limit valid on another Vaughan route after an intervening ride on a TTC bus along Steeles Avenue, showing that such a transfer is feasible. The lack of an arrangement like this must seem unfair to many of the TTC patrons involved.

Schedules On Limited-Service GO Rail Lines Which Are Incompatible With The Hours Of Many Workers

Numerous submissions complained of train times on the GO rail lines with limited service. Most of the complaints concerned the timing of the last train from Union Station, which many workers can't be sure of catching. This forces many to use a car when they would prefer transit. A late evening "trailer" train could overcome this problem.

Need For Additional Cross-Boundary Routes

There are a number of gaps in the system of cross-boundary routes, areas where additional routes will some day be warranted even if the number of travelers who currently need them is not great. Most of the missing routes are from suburb to suburb, so they would not usually be of great length, or be the kind usually operated by GO Transit. Some would be across regional boundaries and some across municipal boundaries within a region. The main examples would run between:

- Scarborough and Pickering
- North York and the west portion of Vaughan
- Oakville and Mississauga (particularly to the Clarkson GO station)
- Vaughan, Richmond Hill and Markham
- Pickering and Ajax
- Oshawa and Whitby

The Incomplete Set Of Fare Integration Agreements Between Municipal Transit Systems and GO Transit

At present "full" fare integration has been implemented between GO Rail and the systems in Burlington, Oakville, Brampton, and Pickering, and a scheme involving a monthly surcharge is in effect with Mississauga. Other municipal transit system patrons - including TTC and HSR passengers - do not have the same transfer privileges with GO. While there are a number of good reasons for this situation, it must seem inequitable to those riders who are aware of it.

Lack of Fare Integration and Service Coordination Between the TTC and GO Transit

This is the most notable omission from the GO/municipal agreements.

GO passengers arriving at Union Station must pay a full TTC fare to ride only a few extra blocks in the downtown area where most of them are destined, even

though there is excess capacity on most of the TTC vehicles involved which are running in the off-peak direction. As a result, many of these passengers walk rather than pay the TTC fare. Modifications of Union Station to improve the connection between the two systems may also be needed, but these are being studied.

At some of the other GO stations in Metro where a TTC station or route is immediately adjacent, service coordination is satisfactory. At the remaining GO stations in Metro, however, service coordination often leaves much to be desired because the bus routes do not come right to the station. Fare integration would also be desirable at all GO stations in Metro, although most riders need it mainly at Union Station.

The lack of fare integration and service coordination at Metro GO stations is no doubt also hindering the development of desirable subcentres.

Lack Of An Overall Approach To Fare Integration And Service Coordination

The fare integration agreements with GO Transit and the free transfer arrangements worked out between some of the municipal systems are significant achievements, but it is not certain that similar arrangements will prove feasible where the number of transferring passengers is far greater. The result may be a number of different ad hoc arrangements which are incompatible with an equitable overall fare integration scheme.

Lack of Centralized Passenger Information Services

Many of the systems will provide limited information on connecting services of other carriers, or will give the caller the other phone number. However, there are no centralized telephone information services that will give full details on routes, schedules and fares of two or more systems. Thus the cross-boundary rider may have to make two or more phone calls to obtain the information needed for a trip.

Differences Among the Transit Systems

The most notable differences are:

- the flat fare zones used by all the municipal systems and the fare-by-distance zones used by GO Transit
- the barrier collection system used by all the municipal systems and the proof-of-payment system being implemented by GO Transit
- the many differences between the fare systems.

Other notable differences are parking, with charges which range from $0.75 to $2.00 per day at the TTC stations where it is provided, while it is supplied free at most GO stations; and the higher fare level for GO Transit compared to the municipal systems. The parking difference tends to offset the difference in fare levels for those who park and ride, while the GO minimum fare, which is currently $1.60, discourages the use of GO for short trips. The GO system is intended to serve a different market, of course, with service that is faster, more costly, less frequent and with fewer stops than the municipal services. Nevertheless the differences often seem inequitable to the riders, and some will undoubtedly need to be rationalized if greater coordination is to be achieved.

Issues That Affect Cross-Boundary Riders Indirectly

Most riders are not aware of these issues although they may be affected significantly by them. The issues are of two main kinds: issues related to subsidies and finance, which will be discussed later in the chapter, and issues related to potential savings from a pooled approach among the operators, which are dealt with here.

Potential Savings From a Pooled Approach Among The Operators

A number of the matters now handled separately by each operator would probably benefit from a pooled approach, which could bring savings. These include such matters as:

- facility and equipment design
- procurement
- equipment maintenance
- equipment loans or pools
- staff training
- public relations and advertising
- labour relations
- sale of advertising space on vehicles, shelters, etc.
- insurance
- professional services such as legal, accounting, consulting, etc.
- research and surveys
- publication of customer news bulletins
- provision of information on routes, schedules, fares, etc.

The potential savings would be due to less duplication, more standardization, greater specialization, and economies of scale. Until such an approach is

checked out it is not known how feasible it would be or what net savings would result, but it is thought that the benefits on matters such as maintenance, staff training, and insurance could be considerable.

Whatever the potential, it is clear that under present arrangements it is not being realized.

ACCOMPLISHMENTS IN PLANNING COORDINATION

Effective Planning Organization Has Been Established Within Each of the Six Regions

The regional government reforms in recent decades have established effective regional and local planning machinery in each of the six regions which comprise the study area. This machinery provides for the coordination of transporation planning as an integral component of overall land use planning, and the coordination of transit planning as a key component of overall transportation planning. The arrangement also provides for the integration of local plans into an overall regional plan for each region. Competent planning departments now exist in each of the regions and in each of the area municipalities which has established a transit system, and political coordination is provided for by the representation of local councils on each regional council.

Thus the organization exists to bring about the coordination of transit planning within each region.

Self-Containment and the Support of Transit are Objectives in each of the Official Plans

All of the regions except Peel and York and all of the area municipalities with transit service have approved official plans. Draft official plans have been prepared for Peel and York. In almost all these plans, a main objective is self-sufficiency or the provision of job opportunities for the resident labour force so as to reduce the need for commuting. The official plans for the Town of Aurora and the Town of Newmarket are the only exceptions. However, both these municipalities are currently preparing new official plans. Planning staff have indicated that in the Town of Aurora "such a target or policy statement is likely to be included in their new document" and in the Town of Newmarket, "that council is active in terms of promoting new development" and hence, opportunities for local employment.

All the above official plans are also committed in principle to the support of transit.

Thus a comprehensive planning framework has been established within each region aimed at both reducing the need for commuting and encouraging the use of transit. Both objectives are difficult to achieve, of course, particularly in the outer regions. Embodying them in official plans is thus no assurance that they will be attained, or even actively pursued.

A Number of Major Studies Dealing with Transit Planning Have Been Carried Out in Recent Years

These include the Toronto Transit Commission Long Range Plan; the Network 2011 study; the South York Region Transit Study; the Mississauga Transportation Study and it's related studies; the West Metro Boundary Transportation Review; The Region of Durham Transit Study; and the GTA Transportation Planning Forum study. These studies deal in varying degrees with the coordination of transit planning between Metro and the three adjacent regions of Peel, York and Durham, although only the Transportation Planning Forum study has an area-wide viewpoint. These studies have focussed attention on the need for transit planning coordination and have assembled a good deal of the planning information necessary for that coordination to proceed.

CHALLENGES IN PLANNING COORDINATION

Although the Organization Exists to Coordinate Transit Planning Within Each Region, it is Hindered Where Transit is Not a Regional Responsibility

This is the case in Durham, York, Peel and Halton, where transit decisions are made by local municipalities.

Though the Municipalities Outside Metro Have Achieved Major Employment Growth in Pursuit of Self-Sufficiency, Commuting is Still Growing Rapidly

This is largely because many of the jobs are filled by non-residents, partly reflecting the types of jobs and partly reflecting the inevitable interdependence of a metropolitan economy. While the match of job types to labour force can be expected to improve as more office development is attracted to the municipalities outside Metro, cross-commuting will inevitably continue to grow. The planning efforts to reduce it through better job balance thus need to be continued and strengthened.

The Transit Plans for the Individual Regions Need to be Coordinated to Best Serve the Whole Area

Because the mandate of each region is to plan for its own citizens, the regional plans cannot be expected to have an area-wide perspective (although they should recognize the influence of land uses in adjoining regions). Nevertheless it is essential that limited transit resources be used where they will do the most good if area-wide transportation needs are to be met.

This has recently become a matter of great importance because a number of major capital projects have been proposed which involve long-term investment decisions, and overall priorities have to be established. An initial review aimed at establishing such area-wide priorities was carried out by the Transportation Planning Forum mentioned above. It indicated that planning has been done in isolation, and that many new opportunities make sense within an area-wide context. It is vitally important that this work be carried to conclusion before decisions are made on the major proposals, for a wrong decision on a major project could prevent the best overall solution from ever being realized.

This issue also makes it very clear that major planning initiatives in any region now have inter-regional significance.

Much of the New Development is Not Ideal for Transit Service

Municipalities now generally require that development plans take account of transit needs. In many areas, however, there is not a great deal of high density development occurring. In addition, the layout of residential subdivisions often makes bus service uneconomic from the operator's point of view, or forces residents to take circuitous walks to bus stops on nearby arterials.

Some density increases can be expected over time through infilling and redevelopment, but a return to the large-scale apartment construction experienced in the past seems unlikely under present conditions. It is important, therefore, that municipalities, as well as the provincial government, continue and increase their efforts to take transit servicing needs into account in assessing plans for new residential subdivisions and other types of development.

ACCOMPLISHMENTS IN TRANSIT FINANCE

Substantial Subsidies are Provided for Transit

The subsidy programs described in Chapter 3 are significant and are largely responsible for the high quality of the transit systems in the study area. The 75% capital subsidies in particular have helped to maintain the excellent condition of most of the facilities and equipment. They have also resulted in capital-intensive systems which, when heavily used, help raise the revenue : cost ratio. The 100% subsidies for GO Transit and cross-boundary routes (the latter now on hold for review) are also largely responsible for the cross-boundary services which are now in place.

The Operating Subsidy Targets Have Helped to Achieve Good Financial Performance

The targets have helped establish a discipline for the operators which they have followed in developing cost-effective services.

The Revenue : Cost Ratios are Among the Best in the World

The financial performance ratios that have resulted - particularly those of the TTC and GO Transit - are the envy of many transit systems elsewhere in the world.

CHALLENGES IN TRANSIT FINANCE

Despite Their Overall Success the Subsidy Programs Could Do More to Bring About Coordination

Except for the special cross-boundary subsidy program which is now on hold, the subsidies provide no special incentive for coordination, i.e. projects and routes that are not coordinated are just as eligible for subsidy as those that are. If the necessary improvements in coordination are to be achieved, the subsidies may have to be used more as a tool to help bring them about. The subsidies could also be used as an incentive for the development of regional transit systems in Durham, York, Peel and Halton where transit is now provided by local operators; instead the subsidy formula acts as a disincentive, as noted in the next paragraph.

The Operating Subsidy Formula Could Act as a Disincentive to More Integration

While the rationale for the formula is the different economies of scale typically achieved by transit systems of different sizes, it can deter the merger of two or more transit systems if their combined populations qualify for less subsidy than

their separate populations. This is in fact the case in each of the four regions with local transit systems.

The different subsidy ratios in the formula might also cause problems if municipalities were to take on a share of the subsidies for municipal cross-boundary routes, for a municipality on one side of a boundary could have more of its loss on a cross-boundary route covered by provincial subsidy then the municipality on the other side.

Total Operating Subsidies Have Increased Significantly Since 1975

Between 1975 and 1985 service levels were raised significantly and combined provincial and municipal annual transit operating subsidies grew from $72 million to $214 million in current dollars or from $158 million to $214 million in constant 1985 dollars, a real increase of 35% or 3.0% a year compounded. The figures are shown in Table 12, which compares the periods before and after 1981. This comparison shows a real increase of 9.8% from 1981 to 1985 or 2.4% a year compounded, compared to one of 23.3% from 1975 to 1981 or 3.6% a year compounded. Thus the rate of increase is only two-thirds of what it was. Nevertheless, 2.4% a year is still well above the comparable rate of population increase in the study area, which is 1.4%. Moreover, there are numerous pressures on the horizon which will call for subsidies to grow more rapidly again. However it is doubtful that a high rate of subsidy growth can be sustained for long. Accordingly, it will be increasingly important to ensure that future decisions are affordable.

Municipalities Want to Make Sure Their Transit Costs are Fair and Kept under Control

Municipal submissions and comments by members of the Municipal Advisory Group have made it clear that municipal councils want to be sure that improving transit coordination won't boost their transit costs too much, or put an unfair burden on their taxpayers. These concerns have been expressed strongly, both in Metro and in the other regions.

TABLE 12

TRANSIT SUBSIDIES FOR THE STUDY AREA, 1975 - 1981 - 1985

			Provincial Share $000	Municipal Share $000	Total $000
1975	in current dollars		40,991	31,485	72,476
	in constant 1985 dollars		89,500	68,745	158,245
1981	in current dollars		88,503	63,266	151,769
	in constant 1985 dollars		113,757	81,319	195,076
1985			123,660	90,466	214,126
Real Increase	1975-1981	$	24,257	12,574	36,831
		%	27.1	18.3	23.3
	1981-1985	$	9,903	9,147	19,050
		%	8.7	11.2	9.8
	1975-1985	$	34,160	21,721	55,881
		%	38.2	31.6	35.3

Sources: Annual municipal transit system returns to the Ministry
GO Transit
Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association

These are legitimate concerns and consequently it will be a central challenge in bringing about the necessary coordination to make sure that any costs are fairly distributed and kept within reasonable limits. Such limits must be viewed in proper perspective however, for the costs of transit coordination will almost always be more than offset by the savings they will ultimately bring, either in transit operations themselves or through the avoidance of traffic jams and road expenditures.

In considering the fair distribution of costs, it must also be kept in mind that better inter-regional transit benefits the region where the riders work as well as the region where they live, for the commerce and industry of the workplace is dependent on good transportation for its workers just as the workers need good transportation to their jobs. Moreover, the cross-boundary traffic is increasingly two-way as the outer regions add more jobs, with more Metro residents commuting to work outside Metro every year.

It would be a serious mistake, for example, to think that Metro won't gain as much from improved inter-regional transit as the surrounding regions will. Indeed Metro probably stands to benefit the most, for its continued commercial/industrial growth must increasingly rely on workers who have to live in the surrounding areas since Metro hasn't the land to accommodate them. In addition, Metro will be more disrupted than the surrounding regions by the road construction that will be unavoidable if transit fails to attract more of the cross-boundary travelers.

ASSESSING THE CHALLENGES

The challenges discussed above form a fairly long list, and their importance needs to be assessed before considering alternative organizational arrangements for dealing with them. Such an assessment has been carried out by weighing them in terms of both seriousness and urgency.

As a result of this analysis it is concluded that the challenges which should be considered serious and urgent at this time are to make sound decisions on the major capital proposals within an area-wide context, to address the fare integration and service coordination problems which are affecting large numbers of passengers and to improve the coordination of special transit services for disabled persons.

The fare integration problems include the full second fare charged for many trips that don't go very far beyond a border, causing thousands to walk the extra distance rather than pay the extra fare, and the similar problem at Union Station where GO passengers walk to their destination downtown to avoid paying a TTC fare.

ENCOURAGING RECENT EVENTS

A number of recent events provide encouraging evidence that the government is prepared to face the challenges discussed in this chapter.

The Speech from the Throne

The first of these was the Speech from the Throne on April 28, 1987 which committed the provincial government to strengthening Ontario's transportation network. In the transit area, the Throne Speech stated that steps will be taken to integrate fares and coordinate services between GO Transit and the Toronto Transit Commission, and that a review of long-term transit requirements in the greater Toronto area will be carried out to help set priorities for future investment.

The Ontario Budget

The Speech from the Throne was followed by a number of commitments in the budget which was introduced on May 20, 1987. These include:

- a commitment of $177 million for capital spending on municipal transit systems throughout the province
- an allocation to GO Transit of more than $100 million this fiscal year for service improvements and expansion of the GO system
- funding to allow the creation of transportation "gateways", transfer points between regions, linking different transportation modes
- funding to permit a pilot project implementing fare integration between GO Transit and the TTC at Union Station.

Announcement of the Greater Toronto Area Transit Investment Review

The Minister recently announced that this review will get under way shortly and report within six months. It will look at rapid transit and other GTA transit improvements in the context of the needs of the broader region, leading to a decision on transit direction in the area by about the end of 1987.

These Initiatives will thus Tackle the Challenges We Have Identified as Most Serious and Urgent at this Time

The members of the Transit Advisory Group are particularly gratified by the proposed pilot project to implement fare integration between GO transit and the TTC at Union Station, for it follows a recommendation which TAG made to the Minister early in the study to initiate a project of this nature. The recommendation was based on early findings of the study, which established the seriousness of the problem and left no doubt that it should be tackled as soon as possible, without waiting for the study to be completed.

It is encouraging to see this recommendation acted on so soon.

The other challenges are not considered to be as pressing at this time. It is clear however that they will become both more serious and more urgent as inter-regional travel demands grow in the future.

IMPLICATIONS OF THE CHALLENGES FOR TRANSIT ORGANIZATION

Because many of the challenges facing the GTA are not yet serious and urgent, less drastic organizational changes will be required if they are introduced soon. It is important therefore to build on current strengths now, enabling the area's capable transit systems to deal with the inter-regional challenges while there is still plenty of time to work out the most appropriate solutions.

In considering the organizational options, therefore, the aim should be to find one that will be both effective and possible to implement without long delay. Effectiveness will need to be measured in terms of the four main kinds of challenges identified above, i.e.:

- service coordination
- fare integration
- planning coordination, and
- finance.

In addition, it is evident that questions of equity will have to be dealt with in each of these areas.

The options are discussed in the next chapter.

CHAPTER 5

THE OPTIONS

This chapter outlines the range of organizational options identified in the study, and describes the narrowing of this range to a short list of main options for evaluation in the next chapter.

RANGE OF OPTIONS

In order to define the options to be considered in the study, TAG reviewed those which had been considered in other recent studies of the area, those proposed in the submissions that have been received, those revealed by a review of the way transit is organized elsewhere in the world, and those suggested by the study findings to date. The options identified below are based on these reviews. It should be noted that the text avoids attributing the options to their sources so as to keep the discussion as simple and direct as possible. Readers interested in the options supported by various submissions will find this information in Appendix B.

KINDS OF OPTIONS

The Working Paper published in 1983 by the previous Study of Inter-Regional Transit Coordination in the Greater Toronto Area (see Appendix A) identified four basic types of institutional arrangement for public transit. These represent increasing degrees of integration among the transit systems in the area, beginning with voluntary **cooperation** at one extreme, and progressing through **coordination**, then **federation**, to full **amalgamation** at the other extreme. These categories have been reviewed by TAG and also in a number of the submissions, and are considered to represent the basic kinds of options.

ISSUES COMMON TO DIFFERENT OPTIONS

There are a number of issues which are not treated as options on their own because they are common to some or all of the identified options.

Special Transit Services for Disabled Persons, Regional Transit, and Privatization

These issues include the coordination of special transit services for disabled persons, the development of regional transit in the regions which now have local systems, and the possibility of greater involvement of the private sector. In each case the issue would remain under all or most of the options, and each

option would be able to deal with it in its own way. These matters are considered again in chapter 7.

Area of Jurisdiction

An option may call for the definition of an area of jurisdiction for a coordinating body, which raises the question of whether Halton and Hamilton-Wentworth should be included. Representatives of both these regions have stated clearly that they want to be included in any transit coordination arrangements, and TAG supports that position because they are part of the GO Transit service area. Thus when an inter-regional coordinating body is referred to in an option, its area of jurisdiction will be assumed to include the entire study area unless otherwise specified. Moreover, the possible need for future extensions of this area will also need to be considered.

SPECIFIC OPTIONS

The specific options represent the main alternatives under **cooperation, coordination, federation** and **amalgamation.**

COOPERATION

This is essentially the existing arrangement, under which the 17 independent transit systems may agree to coordinate some of their activities by voluntary cooperation. The first option is thus:

The Status Quo

The existing Transit Forum would continue to serve as a meeting ground to facilitate cooperation, and the Transportation Planning Forum would continue to review planning issues. Consideration should be given to enlarging their memberships to include representatives from Hamilton-Wentworth and Halton.

COORDINATION

This would require a coordinator, separate from the transit operators, to coordinate their activities. A number of options have been identified under this heading as follows:

Ministry of Transportation Leadership Role

This would involve a commitment by the Ministry of Transportation to become the coordinator and take an advance pro-active role in inter-regional transit planning and coordination within the GTA.

Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Advisory Group

This would be the same as the Ministry of Transportation Leadership Role above, but with the addition of a panel of individuals appointed by the Minister to advise him on transit coordination within the GTA. Since they would be purely advisory and since it is essential that they be able to take an area-wide view, it is felt that the panel members need not and should not be municipal representatives but should be appointed by the Minister in consultation with the Regions. The panel should be required to seek input from those concerned with transit coordination in the area.

Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Coordinating Agency

This would be like the preceding option except that the advisory body would have its own staff, and thus would be able to seek more input from others, provide more independent advice to the Minister, take on more responsibility, and ensure more consistent ongoing coordination.

An Inter-Regional Transit Authority

This would be a new body, separate from the Ministry of Transportation, charged with the coordination of all public transit systems within the GTA, including GO Transit. It would have its own staff, and would be given control over the distribution of all provincial transit subsidies in the area, though the Ministry of Transportation would still determine the total subsidy funds. Because it would have its own powers and not be advisory, its members would be expected to represent the municipalities under its jurisdiction.

FEDERATION

In a federation the different transit operators would join for certain common purposes, while retaining their independence in other matters. Because the federation would have powers of its own, representation would need to be agreed upon at both the political and technical levels.

A Federation of Some of the Operators

Under this option only some of the operators would federate, most likely those in Metro, Durham, York and Peel. A separate federation of the other operators would also be possible. Such federations could be either "limited" or "full" as defined in the two following options.

A Limited Federation

In this option the number of common purposes would be limited, leaving most matters to be dealt with by each operator independently.

A Full Federation

In this option, most matters other than actual operation would be dealt with on a common basis.

AMALGAMATION

Under amalgamation the separate transit systems would be merged into one. Partial amalgamation, involving either some of the services or some of the operators, would be possible. Because the amalgamated system would have powers of its own, representation would need to be agreed upon among the municipalities involved.

Amalgamation of Rail Services

Under this option a single operator would take over all rail transit in the area, leaving each of the bus systems under a separate operator. Service and fare integration between the bus and rail systems would have to be worked out by agreement, possibly requiring a coordinator.

Amalgamation of Some of the Operators

In this option, only some of the operators would amalgamate, most likely those in Metro, Durham, York and Peel. A separate amalgamation of the other operators would also be possible.

Full Amalgamation

With full amalgamation, all 17 of the systems in the area would be merged into one.

NARROWING THE CHOICE

In order to zero in on a short list of main options, three different approaches were used and compared: a review of all the submissions which made an organizational proposal; a comprehensive analysis carried out by TAG; and a review of the analysis in the previous report on Inter-Regional Transit Coordination in the Greater Toronto Area.

The results of these three approaches show that, except for two submissions from individuals,* there is complete agreement on two main conclusions:

- **cooperation alone will not be able to bring about the coordination that is needed;**
- **it is not necessary to resort to either federation or amalgamation, because the challenges facing the area have not been allowed to become that serious.**

These conclusions effectively narrow the choice to the "coordination" options.

THE MAIN OPTIONS

The main options for further consideration are thus the four coordination alternatives described above.

Some of their distinguishing characteristics are as follows:

Option 1 - Ministry of Transportation Leadership Role

- No independent advice to the Minister
- No formal process for coordinating transit planning, services and fares, but an additional step added to the approval process for proposals requiring such coordination
- Some additional Ministry of Transportation staff required

Option 2 - Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Advisory Group

- Provides the Minister with independent advice
- Formalizes a process for broadly-based high-level input on the coordination of transit planning, services and fares
- Some additional Ministry of Transportation staff required

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*Both of these submissions support amalgamation.
The 70 submissions received by TAG are analysed in Appendix B.

Option 3 - Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Coordinating Agency

- Provides the Minister with more independent advice than option 2
- Formalizes a process for broadly-based high-level input on the coordination of transit planning, services and fares
- Enables the agency to take a lead role in providing for area-wide coordination of transit planning early in the planning process rather than after the plans are prepared
- The agency establishes its own staff, enabling it to seek more input from others than option 2
- Establishes an ongoing organization to ensure consistent ongoing coordination
- No additional staff required at the Ministry of Transportation

Option 4 - An Inter-Regional Transit Authority

- Establishes a separate body with clear responsibility for transit coordination, relieving the Ministry of Transportation of this responsibility
- The new body has authority over transit operators and distributes provincial transit subsidies, significant departures from existing arrangements
- Representation will be an issue because the authority has powers of its own
- The authority establishes its own staff, but no additional staff is required at the Ministry of Transportation

These options are evaluated in chapter 6.

CHAPTER 6

MAKING THE APPROPRIATE CHOICE

In order to choose the most suitable option, the 4 remaining options are evaluated below using a number of basic criteria.

THE CRITERIA

The criteria to be used have been developed in light of the challenges which were described in Chapter 4, the concerns expressed in the submissions, and the review of experience elsewhere. Their purpose is to help identify the institutional arrangement that will best meet the overall needs of the area.

Three basic criteria have been defined, and a number of related sub-criteria have been identified under each of these. The purpose of the latter is to ensure that all the significant factors are taken into consideration when rating an option against a basic criterion. The three basic criteria are effectiveness, accountability, and ease of implementation. These are defined below along with their related sub-criteria.

EFFECTIVENESS

The ability of an institutional arrangement to bring about the needed improvements in coordination. There are half a dozen sub-criteria that fall under this basic criterion, as follows:

Ability to Coordinate Planning

The ability to coordinate the separate transit planning initiatives of the various jurisdictions in the best interests of the area as a whole. This includes the ability to coordinate planning for transit for disabled persons as well as regular transit, and the ability to encourage land use planning that is more transit-oriented. Such capability increases with the ability to coordinate early in the planning process.

Ability to Coordinate Services

The ability to coordinate the routes and schedules of different operators in order to provide the best possible service to the cross-boundary rider. This includes the ability to overcome deficiencies in service and in service levels.

Ability to Integrate Fares

The ability to bring about fare integration in a consistent and equitable manner.

Ability to Get the Most from Transit Spending

The ability to recognize the limitations on available financial resources and to allocate these resources in the most effective way. It includes maximizing overall cost-effectiveness, taking the cost of the option itself into account.

Ability to Advocate Transit

The ability of an option to be a transit advocate, representing the interests of the transit riders and operators in the area. This depends on the extent to which an option is responsible only for transit and is thus able to concentrate entirely on transit concerns.

Ability to be Consistent

The ability to bring about the necessary coordination in a steady, continuous and consistent way over time and throughout the area. This depends on the extent to which an option is established as an ongoing and independent entity, and is able to concentrate solely on transit in the GTA.

ACCOUNTABILITY

The extent to which an identifiable entity is accountable for the results that are achieved. There are two sub-criteria under this basic criterion as follows:

Responsibility

The extent to which an option is charged with meeting certain commitments. This depends on the degree to which responsibility is clearly assigned.

Responsiveness

The ability of an option to respond to public needs. This depends on the arrangements for obtaining and responding to input from consumers and citizens, and on the effectiveness of the process for evaluating and coordinating operators' applications for subsidies.

EASE OF IMPLEMENTATION

The ease of establishing an option and making it operational. There are two sub-criteria that fall under this basic criterion:

Acceptability

This indicates the degree of acceptance which an option is likely to receive from elected representatives, transit riders, the general public, transit operators, and special interest groups. No option is likely to please everyone, but to be implemented easily an option must have enough acceptability to be established and operated without strong opposition.

Compatibility with Established Practices

The extent to which an option is not disruptive of established procedures and expectations. This in turn depends on the extent of institutional change involved.

ISSUES CONCERNING THE OPTIONS

There are two issues concerning the options that need to be discussed before the evaluation is carried out. These reflect concerns which were raised by some of the municipal advisors with respect to costs and the coordination process.

COSTS

Each option will obviously cost something to implement and operate because it involves doing things that are not done now, and the question is whether this money would be better spent directly on providing more transit. As the cost of an option also obviously rises as we move from option 1 through to option 4, a related question is whether the more costly options would be worth the difference.

With regard to the last question, the cost differences would not be as great as might at first appear because some additional Ministry of Transportation staff would be needed under options 1 and 2, which would partly offset the new agency or authority staff needed for options 3 and 4. Thus the net differences may not be great.

With regard to the first question, the cost of any option will represent only a tiny fraction of the amount spent on capital and operating subsidies for the 17 transit systems in the area, which came to $436 million in 1985 (see chapter 3). Clearly, only a minor improvement in the cost-effectiveness of such spending will be needed to cover the cost of an option, and the more effective the option, the more cost-effective it is likely to be. Because of this, TAG believes that each option would more than pay for itself through the greater use of public transit

and the improvements in efficiency that it would bring about, and that the net benefit would increase with the capability of the option that is chosen.

COORDINATION PROCESS

A concern has been expressed that adding a coordinating step to the review process for transit proposals will delay needed improvements unnecessarily and interfere with the provision of local services. Thus it is argued that coordination should be achieved in some other way. This concern is based on two misconceptions. The first is that coordination will interfere with purely local transit decisions, when in fact it will only deal with matters affecting trips involving two or more transit jurisdictions. The second is that it is possible to get coordination without taking the time to coordinate, when in fact some additional time is unavoidable if the job is to be done properly. The amount of coordination achieved will also tend to vary with the amount of time spent coordinating, and since the benefits of coordination usually endure while the time is spent only once, the benefits will generally more than compensate for any extra time spent coordinating.

Thus the cost of an option should be considered in relation to the savings it will bring, and the time it adds to the approval process should be considered in relation to the coordination benefits it will bring.

These factors are taken into account in the evaluation.

EVALUATING THE OPTIONS

In the evaluation discussion which follows, the options are referred to by number. The options once again are:

Option 1 - **Ministry of Transportation Leadership Role**

Option 2 - **Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Advisory Group**

Option 3 - **Ministry of Transportation Leadership Assisted by an Inter-Regional Transit Coordinating Agency**

Option 4 - **An Inter-Regional Transit Authority**

The options have been rated against the basic criteria in a qualitative evaluation that takes the related sub-criteria into account. The views expressed in submissions are an important input to the process, and they are taken into consideration under the criterion that deals with ease of implementation.

The results of the evaluation are discussed for each criterion in turn, then for the overall outcome which identifies the preferred option.

EFFECTIVENESS

The evaluation shows that the ability to coordinate effectively increases with each successive option from one to four. This reflects the fact that the options progressively commit more resources to the task, become more independent, and become better able to concentrate on transit in the GTA. There is a significant increase in effectiveness with option 3, for it has the ongoing ability to increase the consistency and continuity of coordination throughout the area.

ACCOUNTABILITY

The results show that accountability for improving coordination increases with each successive option from one to four. This is because the task is assumed by bodies that are progressively more responsible for the outcome.

EASE OF IMPLEMENTATION

The ratings indicate that options 1, 2 and 3 would be relatively easy to implement, but that option 4 would not be.

Options 1 and 2 are considered relatively easy to implement, and option 3 slightly less so because it involves more change from the status quo. Option 3 should still prove quite acceptable however, because it is a variant of the kind of solution proposed by all but two of the submissions that addressed the issue of organization, which is that the Ministry of Transportation should assume responsibility for transit coordination.

Option 4 on the other hand is given a low rating on ease of implementation. This is because it represents a drastic change from existing arrangements, one that would seriously disrupt the established channels for obtaining funding and inevitably prove to be highly controversial. In addition, option 4 was only proposed by two of the submissions, indicating that it would not be widely acceptable.

Input from the Submissions

Twenty of the submissions deal with the issue of transit organization. Seven of these propose that the Ministry of Transportation should be the coordinator - option 1 - while eight of the other thirteen, including the TTC submission, propose a variation of this similar to either option 2 or 3, in which the Minister appoints a body to advise him on transit coordination. Of the remaining five, two support an inter-regional transit authority with powers of its own like option 4, two support amalgamation, and one proposes a restructured TATOA as an advisory agency with some resemblance to option 3.

The great majority of the above submissions thus support options 1, 2 or 3, and only a minority support option 4. In addition, a number of those presenting submissions plus a number of the municipal advisors have stated that they would oppose a strong, independent transit authority like option 4 because they regard it as disruptive and unnecessary.

A more detailed analysis of the submissions is given in Appendix B.

THE OVERALL EVALUATION

When the evaluations are combined option 3 clearly emerges as the preferred choice. It is the most effective and accountable of the options that would not be very difficult to implement.

CONCLUSION

The overall evaluation thus leads us to the firm and unanimous conclusion that option 3 is the most appropriate institutional arrangement for bringing about the transit coordination that is needed in the GTA.

Our recommendations to the Minister are given in Chapter 7.

CHAPTER 7

RECOMMENDATIONS

Based on the study findings and the foregoing analysis of what needs to be done to improve transit coordination in the area, we make the following recommendations:

RECOMMENDATION 1: OBJECTIVES

The following objectives should be adopted for the improvement of inter-regional transit service in the GTA:

INCREASE FARE INTEGRATION

Fare integration should be increased so as to make trips involving two or more transit jurisdictions more attractive and convenient. Particular attention should be given to reducing the annoyance of being charged a full second fare for a short additional ride.

IMPROVE SERVICE COORDINATION

Service coordination between the different transit operators should be improved in the interest of serving cross-boundary travelers better and increasing the modal split.

Opportunities for possible savings through a pooled approach on matters such as maintenance, staff training, etc. should also be explored. Such savings would benefit the riders indirectly.

IMPROVE PLANNING COORDINATION

Planning coordination should be improved so as to rationalize the planning initiatives of individual jurisdictions in the best interests of the area as a whole. Procedures should be established involving consultation that starts early in the planning process rather than after the plans are prepared.

IMPROVE COORDINATION OF TRANSIT SERVICES FOR DISABLED PERSONS

Coordination of special transit services for disabled persons should be improved in ways similar to those recommended for regular transit.

ENCOURAGE LAND USE PATTERNS THAT ARE MORE TRANSIT ORIENTED

Land use patterns and densities that are more transit oriented should be encouraged. To help bring this about, the Minister should initiate discussions with other ministries and with regional and municipal planning staffs to find ways to ensure that the requirements for effective transit operation and the needs of transit users are taken into consideration in municipal land use decisions. The Minister should also arrange to have the Ministry of Municipal Affairs involved in the early stages of discussions on all transit proposals that will affect land use.

ENCOURAGE THE DEVELOPMENT OF REGIONAL TRANSIT SYSTEMS

The development of regional transit systems should be encouraged. Existing financial disincentives to the merger of local systems in Durham, York, Peel and Halton should be eliminated. The successful development of regional transit in Hamilton-Wentworth should be used as a model to allay concerns about the provision of uneconomic routes and the allocation of operating costs to areas not benefiting from transit services.

ELICIT CONSUMER INPUT

Improved and ongoing arrangements should be established to encourage and respond to input from transit users and consumer groups, especially in the early stages of transit planning.

COORDINATE THE GATHERING, ANALYSIS AND DISTRIBUTION OF INFORMATION ON TRANSIT

The collection and analysis of transit data and the undertaking of research on transit issues should be coordinated, and a central repository for transit planning and monitoring information should be established in the GTA.

IMPROVE OVERALL COST-EFFECTIVENESS

In recognition of the limits on available financial resources, efforts to improve the overall cost-effectiveness of transit spending should be strengthened. Such efforts should include the exploration of

opportunities to cut costs and increase efficiency through greater involvement of the private sector.

RECOMMENDATION 2: ORGANIZATION

The above objectives will have to be effectively pursued if the challenges are to be met. Option 3 has been shown to be the most appropriate institutional arrangement for doing so. We therefore recommend that:

The Ministry of Transportation should assume a more active role in inter-regional transit coordination in the Greater Toronto Area, and the Minister should establish an Inter-Regional Transit Coordinating Agency (ITCA) with its own staff to assist him in the fulfillment of this role.

RECOMMENDATION 3: RESPONSIBILITIES

The ITCA should be responsible for advising the Minister on ways to improve the coordination of cross-boundary transit in the GTA, with special reference to the objectives defined in recommendation 1. The ITCA should also play the role of transit advocate throughout the area.

RECOMMENDATION 4: STRUCTURE

AREA OF JURISDICTION

The area of jurisdiction of the ITCA should cover the GTA, including but not limited to Metropolitan Toronto and the Regions of Durham, York, Peel, Halton and Hamilton-Wentworth, and encompassing the GO Transit Service Area. The area of jurisdiction should be reviewed periodically by the Minister for possible extension within the GTA commutershed.

COMPOSITION OF THE BOARD

It is essential that the members of the coordinating agency take an area-wide view. For that reason, they should be citizens at large and not representatives of individual municipalities. As their role is only to advise the provincial government which already represents the people of the area, they do not need to be elected representatives. It is expected that the Minister will consult with Regional representatives on appointments to the board.

Accordingly, the following composition is proposed for the board:

The ITCA should have a board of directors composed of individuals appointed by the Minister. The board should consist of a chairman and 4 members serving on a part-time basis. Their terms of office and remuneration should be set in accordance with provincial standards for agencies of a similar nature.

STAFF AND BUDGET

The agency should have its own full-time staff headed by an experienced chief executive officer, and should be given sufficient financial resources to fulfill its responsibilities.

RECOMMENDATION 5: PROCEDURES

REVIEW OF CAPITAL AND OPERATING PLANS

The ITCA should review the 5-year capital and operating plans of each transit system in the GTA on a regular basis, and advise the Minister on any coordination issues raised by these plans.

EARLY CONSULTATION WITH PROVINCIAL AGENCIES, MUNICIPALITIES AND TRANSIT OPERATORS

The ITCA in cooperation with provincial agencies, the municipalities and the transit operators should establish a procedure for consultation starting early in the planning process, so as to achieve coordination as plans are developed.

CONSULTATION WITH OTHERS

The ITCA should seek input from others concerned with transit coordination, and provide information to them. Those consulted should include:

- **transit users and consumer groups**
- **the general public**
- **special interest groups, including those representing disabled persons**
- **any other organizations concerned with transit coordination**

The ITCA Board should establish a permanent advisory committee of transit users and consumer representatives.

RESEARCH

The ITCA should coordinate data collection and analysis in the area, and should also undertake research on transit coordination, initiate studies, gather necessary data, and carry out independent reviews as directed by the Minister. As a result of these activities, the agency should become the central repository and distribution centre for transit planning and monitoring information in the GTA.

REVIEW OF SUBSIDY POLICIES

The ITCA should review provincial subsidy policies to determine how subsidies can best be used to encourage transit coordination.

RECOMMENDATION 6: IMPLEMENTATION

Since a few of the challenges facing the area are considered serious and urgent and the others will become so if they are not acted on soon, implementation of the above proposals should proceed as quickly as possible.

RECOMMENDATION 7: REVIEW OF PROGRESS

The foregoing recommendations, if implemented, will establish a new institutional arrangement for transit coordination in the GTA. It will be important to review the progress of the new arrangement after a reasonable time to determine its effectiveness. Accordingly our final recommendation is that:

The Minister should review the accomplishments of the new institutional arrangement within 5 years of the time that it becomes operational.

CONCLUSION

The GTA is served by transit systems that are among the best in the world. To continue and build on this tradition, leadership will be required to achieve better coordination among the individual transit systems.

There are a number of encouraging signs of the dawning of a new era of closer cooperation amongst the area's transit operators. Such a development is welcome of course, for it will make it easier to meet the coordination challenges and deal with some of them sooner. However, such cooperation does not eliminate the need for the organizational changes recommended. Voluntary cooperation is too dependent on the individuals involved and on changes in the leadership of particular organizations. To ensure ongoing coordination and continuity, new institutional arrangements are necessary.

APPENDIX A

PREVIOUS STUDIES

APPENDIX A
PREVIOUS STUDIES

A number of previous studies have dealt in one way or another with transit coordination in the Greater Toronto Area. These studies are listed below in chronological order.

"Transportation Organizational Alternatives", Report 17, Metropolitan Toronto Transportation Plan Review, September 1973

"Transportation Organization Alternatives", Volume 1: "Summary", Volume 2: "Analysis and Development", Volume 3: "Appendix", prepared by Paterson Planning and Research Limited for the Metropolitan Toronto Transportation Plan Review, 1973 (unpublished)

"Toronto Area Transit Operating Authority - T.A.T.O.A. - Report on the Organization of the Toronto Area Transit Operating Authority," Steering Committee report to the Premier, January 1974

"The Role of Transit Operating Agencies", by W.T. Howard, T.A.T.O.A., paper presented to Roads and Transportation Association of Canada Annual Conference, September 1975

"Regional Transit Role Study" by the Regional Municipality of York Engineering Department, October 1976

"Toronto-Bowmanville Corridor Inter-Regional Bus Service Study", by IBI Group for the Regional Municipality of Durham, March 1978

"Transportation: A Policy Paper of the Draft Official Plan", by the Regional Municipality of York, July 1979

"Land Use", by the Land Use Task Team, on behalf of the Joint Metro/TTC Transit Policy Committee, August 1979

"Regional Transportation Policies", by the Regional Transportation Policies Task Team on behalf of the Joint Metro/TTC Transit Policy Committee, September 1979

"Review of the Roles and Responsibilities of the Toronto Area Transit Operating Authority", by H.F. Gilbert, Deputy Minister, Ministry of Transportation and Communications of Ontario, March 1980

"Study of Inter-Regional Transit in the Toronto Area", Phase I Report, by G.H. Johnston, N.A. Irwin and N.D. Lea for the Ontario Ministry of Transportation and Communications, April 1980

"Reassessment of the Demand for Commuter Transit in the Toronto Region", by University of Toronto/York University Joint Program in Transportation for the Ontario Ministry of Transportation and Communications, May 1980

"Phase 1 - Short-Term Transit Improvement Plan", by the Level of Service Review Steering Committee for the City of Mississauga, June 1980

"York Travel Survey, 1979-1980", by the Regional Municipality of York, 1981

"Transit Study South York Region", by the Regional Municipality of York, April 1981

"Go Transit Fare Collection and Ticketing Study", by IBI Group for T.A.T.O.A., July 1981

"Report on Spatial Patterns of Urban Activities", by John Bousfield Associates Limited, for the Toronto Transit Commission, October 1981

"Complementary Plans and Organizational Interface Study", by the IBI Group and Comay Planning Consultants for the Toronto Transit Commission, December 1981

"1982 Long Range Plan", by Toronto Transit Commission

"Metropolitan Toronto's Traffic Problem", by Hans Blumenfeld, May 1982 (unpublished)

"An Inter-Regional Rapid Transit Strategy for the GO Transit Service Area", by Ministry of Transportation and Communications, August 1982

"Input By The Ontario Urban Transit Association to MTC's Long Range Plan For Municipal Transportation", by Ontario Urban Transit Association, October 1982

"Inter-Regional Transit Coordination - A Working Paper - A Study of Inter-Regional Transit Coordination in the Greater Toronto Area," by Paterson Planning and Research Limited for the Ontario Ministry of Transportation and Communications, June 1983

"Inter-Regional Transit Coordination - An Implementation Plan - Proposals for the Implementation of Inter-Regional Transit Coordination in the Greater Toronto Area," by Paterson Planning and Research Limited for the Ontario Minisltry of Transportation and Communications, January 1984

"Transit Fare Integration in the Toronto Area - Phase II" - 4 volumes - prepared by the IBI Group in association with J.W. Leas & Associates and Paterson Planning and Research Limited, volumes 1-3 November 1984, volume 4 March 1985

"Mississauga City Centre to Bloor Subway Transit Connection Feasibility Study - A Joint Provincial/Municipal Study," Report by the Project Team, March 1985

"Network 2011 - A Rapid Transit Plan for Metropolitan Toronto," by Toronto Transit Commission, May 1985

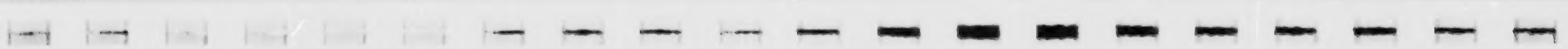
"West Metro Boundary Transportation Review," by Metropolitan Toronto Planning Department - Transportation Division, May 1986

"Network 2011 - Final Report," by Metropolitan Toronto Planning Department and Toronto Transit Commission, June 1986

"Region of Durham Transit Study," by M.M. Dillon Limited, September 1986

"Future Transportation Needs in the Greater Toronto Area," a joint report by the Municipality of Metropolitan Toronto and the Toronto Transit Commission, March 1987

"Markham Transit Study," by Delcan - De Leuw Cather Canada Ltd., April 1987



APPENDIX B

SUBMISSIONS

APPENDIX B

SUBMISSIONS

The Transit Advisory Group received a total of 70 submissions over the course of the study. Of this total, 14 were received from transit operators and from regional and area municipalities, 9 were received from various community and business organizations and groups, and 47 were received from the general public.

TAG's own mailing address and phone line were established and the following public notice calling for written submissions was placed in newspapers throughout the study area at the beginning of December 1986.

Ontario

An advisory body has been appointed by the Honourable Ed Fulton, Minister of Transportation and Communications, to study various options for improving the coordination and integration of public transit in the area comprising Metro Toronto, Peel, York, Durham, Halton and Hamilton-Wentworth. The aim is to facilitate inter-regional travel by public transit in this greater Toronto area.

The advisory group invites letters or written briefs by January 31, 1987. Submissions should be addressed to:

Transit Advisory Group
719 Yonge Street, Suite 205
Toronto, Ontario M4Y 2B5
(416) 323-9909

The public notice was also printed in the news bulletins which are published and distributed periodically to passengers on GO Transit, the TTC, Mississauga Transit and the Hamilton Street Railway.

In the course of receiving the submissions, it became evident that many of the municipalities and the operators required additional time to carefully consider their positions. For this reason, the original deadline for accepting the submissions was extended by three months, from January 31 to April 30, 1987.

All of the municipalities and transit operators were informed of the extension, both by phone and in writing.

All the municipalities, transit operators and other organizations making written submissions were given the opportunity of having a deputation present the submission and discuss it at a TAG meeting, and ten of them did so.

ANALYSIS OF THE SUBMISSIONS

A) SUBMISSIONS FROM TRANSIT OPERATORS, REGIONAL AND AREA MUNICIPALITIES

The following is a list of the transit operators and regional and area municipalities which made submissions to TAG. Those which presented their submissions at a TAG meeting are indicated by an asterisk.

- Submissions from GO Transit and transit systems under separate Commissions:
  - Toronto Transit Commission*
  - GO Transit*
  - Oshawa Transit

- Joint Submissions from transit operators and their regional or area municipalities, in descending order by ridership:
  - Hamilton Street Railway / Region of Hamilton-Wentworth*
  - Mississauga Transit / City of Mississauga
  - Brampton Transit / City of Brampton
  - Burlington Transit / City of Burlington
  - Markham Transit / Town of Markham*
  - Vaughan Transit / Town of Vaughan*
  - Richmond Hill Transit / Town of Richmond Hill

- Submissions from Regional Municipalities:
  - Region of Durham*
  - Region of York*
  - Region of Peel*
  - Region of Halton

A summary of the content of these 14 submissions is presented in Table B-1.

Institutional and Organizational Arrangements

10 of the 14 submissions from transit operators and municipalities deal with the issue of institutional and organizational arrangements. All 10 of these submissions propose that the Ministry of Transportation should take the lead role for the coordination of inter-regional transit. However, 6 of them (including GO Transit, Mississauga, Brampton, Markham, Vaughan and York) support the Ministry of Transportation as the coordinator or TAG's Option 1. The other 4 (including the TTC, Peel, Halton, and Hamilton-Wentworth) propose a variation of this along the lines of TAG's Options 2 and 3, in which the Minister appoints a group or agency to advise him on inter-regional transit coordination.

Capital Projects/Service Expansion

Almost all of the submissions (11 out of 14) propose new investments in various forms of transit. The exceptions are GO Transit and the Regions of Peel and Hamilton-Wentworth. 10 of the 14 submissions identify the need for whole new bus routes or extensions to existing bus routes to service areas of new residential and industrial development. 3 out of the 14 submissions (from Oshawa, Durham, and York) propose major capital projects including extensions to the existing GO rail network and additional subway and light rail transit lines to meet the increasing volume of ridership, particularly to and from the outer regions. 6 of the 14 submissions (from the TTC, Brampton, Burlington, Vaughan, Durham, and York) also propose one or more service improvements including increasing the level and frequency of service or extending the hours of service on GO rail and GO bus routes.

TABLE B-1

SUMMARY OF 14 SUBMISSIONS FROM TRANSIT OPERATORS, REGIONAL AND AREA MUNICIPALITIES

Issue	Number of Submissions Dealing with Issue	Position Supported	Number of Submissions Supporting Position
Institutional and Organizational Issues	10	• Ministry of Transportation Lead	10
		• TAG Option 1	6
		• TAG Options 2 and 3	4
Capital Projects/Service Expansion	11		
a) Major Capital Proposals	11	• Extension of GO Rail lines	2
		• Extension of subway/LRT lines	1
		• New bus routes and extensions	10
b) Service Expansion	6	• Increased frequency and/or levels of service	4
		• Extended hours of service	4
Fare Integration / Service Coordination	11	• Fare integration	11
		• Service coordination	8
Funding and Financial Issues	10		
a) System of Subsidies	7	• Restructure system of subsidies towards a more equitable interregional funding strategy	4
		• Establish a more satisfactory formula to share revenues or subsides to cover losses	4
		• Continue special cross-boundary subsidy	3
b) Cost Saving Measures	5	• Rationalize services to avoid waste and duplication	3
		• Improve attractiveness of services to increase ridership for cost effectiveness	2
		• Service improvements should not result in an increased burden on local taxpayers	3
Establishment of Regional Transit Authorities	5	• Responsible for planning and operating	4
		• Responsible for planning, but not operating	1
Other Issues	6	• Better coordination between land use developments and transportation planning	4
		• Parallel improvements in special transit services for disabled persons.	4

Note: Numbers may not add due to overlapping.

Fare Integration/Service Coordination

A majority of the submissions either recommend or are clearly supportive of the need for fare integration (in 11 out of 14 cases) and service coordination (in 8 out of 14 cases) between the various transit systems.

This count includes varying degrees of fare integration though, from a minimum proposal "to reduce cross-boundary fares on GO Transit" to "full fare integration" across all of the 17 transit systems.

Similarly, the degree of coordination of services ranges from "extending municipal bus service to GO rail stations" and "more direct" or "improved inter-municipal and inter-regional transit connections" to a fully coordinated system of transit services across the GTA.

Funding and Financial Issues

While the coordination of services and fare integration is expected to attract more ridership, improve operating efficiency and ultimately reduce overall costs, many of the submissions outlined some major concerns about funding and financial issues. 10 of the 14 submissions contain specific recommendations aimed at achieving a more equitable system of funding, along with other cost saving measures and revenue sharing strategies.

7 of the submissions for example (from GO Transit, the TTC, Mississauga, Vaughan, Peel, Halton, and Hamilton-Wentworth) cite the need to "restructure the system of subsidies to provide a more equitable and comprehensive interregional funding strategy", or a more "satisfactory formula to share revenues or cover losses" among the 17 transit operators. Further, the submission from Hamilton-Wentworth proposes that "consideration be given to removing mega transportation projects from the normal funding program into one-time special projects" and that "a formal process be established to prioritize investment in roadways and public transit infrastructure". On the issue of the 100% cross boundary subsidy for municipal transit services, 3 of the submissions (from the TTC, Markham, and Vaughan) specifically recommend continuation of the policy.

Other cost saving measures are proposed in 5 out of the 14 submissions (from the TTC, Brampton, Burlington, Oshawa, and Peel). All 5 submissions propose either rationalizing services to eliminate duplication between the various operators or

improving the attractiveness of services to increase ridership for cost effectiveness and expenditure savings. Indeed, the TTC's submission recommends both of these measures.

Another consideration which is expressed in 3 of the submissions (from Burlington, Oshawa, and Peel) is the concern that any increase in services and system improvements as a result of coordination "does not result in an increased tax burden on the local taxpayers."

Establishment of Regional Transit Authorities

5 out of the 14 submissions support moving toward the establishment of regional transit authorities, which would be responsible for the planning and coordination of regional transit. However they diverge on the question of the regional authorities taking over operation from the existing local operators. Both GO Transit and Hamilton-Wentworth propose that the regional authorities should eventually operate the systems.

Similarly, the submission from Durham is included in the 5, but more implicitly, because it deals with the process of regionalizing it's own local transit planning and operating roles, but doesn't deal with the issue for other regions.

In the case of Halton Region, the submission proposes that the region "be given the mandate" for long term planning (5-20 years) of both "interregional" and "intermunicipal transit services". However, Halton also suggests that the role of short-term operational planning (1-5 years) "may best be vested with the local transit operators". Further, the local operators would also "consult with the regions regarding inter-municipal connections, etc."

Lastly, the submission from Peel Region is also included, because it suggests "amalgamating some of the 17 operators into 6 or 8 operators," noting that "this would be a more effective way to implement the general option of coordination". This implies the amalgamation of a number of the local transit systems.

Other Issues

At least two more issues were considered to be of major importance. 4 of the 14 submissions (from GO Transit, Durham, Halton, and Hamilton-Wentworth), identify the need for better coordination between land use and transportation planning. In GO Transit's submission a proposed goal of the Ministry of

Transportation as coordinator would be "to achieve a balanced regional/provincial road and transit system consistent with land use policies . . . and the official plans of the regions". Hamilton-Wentworth's submission directly states that "coordination between land use development and transportation infrastructure must be strengthened". Halton's recommendation is more general. Their submission states that "the Province, through broader based land use and transportation policy development could integrate regional transit plans for the delivery of transportation services in the GTA". Durham's position is once again more implicit, in the submission's examination of the impacts of transit services on land uses over the course of investigating the potential for regionalizing public transit.

A second but no less important issue, also identified in 4 out of the 14 submissions (from GO Transit, Durham, Peel and Richmond Hill), is the need for parallel improvements in the provision of cross-boundary special transit services for disabled persons. This count might be further expanded to include the Town of Vaughan and the Town of Markham, because Richmond Hill reports that the three Towns have recently established a "Joint Advisory Committee, which is currently looking into the matter of (an inter-municipal) cross-boundary service for the disabled".

B) SUBMISSIONS FROM OTHER ORGANIZATIONS AND GROUPS

A total of 9 substantive submissions were received from other community organizations and groups. A written request was also received from another community organization, asking that a deputation visit TAG to personally discuss their position and their personal views and concerns. They were informed that TAG's policy was to receive the written submission first, so as to ensure that it falls within the terms of reference; if this proved to be the case, then a meeting with the deputation would be arranged. Following this, no formal submission was received from this organization.

For the record though, it is included in the list of "Other Organizations and Groups" which corresponded with TAG. These are listed below. The ones which presented their submissions at a TAG meeting are indicated by an asterisk.

- Amalgamated Transit Union Local 113

- Board of Trade of Metropolitan Toronto
- Community Services Advisory Committee - Hamilton Region March of Dimes[1]
- Friends of Spadina
- Ontario Motor Coach Association*
- The Barrie-Toronto Train Passengers Association
- Transport Canada - Airports Authority Group - Pearson International Airport
- Transport 2000 Ontario*
- TTC - Wheel Trans Community Committee, North York
- York Federation of Ratepayers

Table B-2 contains a summary of the 9 submissions which TAG received from other organizations and groups.

Institutional and Organizational Arrangements

6 out of the 9 submissions address the issue of institutional and organizational arrangements. 4 of the 6 submissions support a Ministry of Transportation lead for the coordination of interregional transit. These include the submission from the Board of Trade of Metropolitan Toronto in support of the Ministry of Transportation as the coordinator (TAG Option 1); and submissions from the Amalgamated Transit Union Local 113 (representing the employees of the TTC), the Community Services Advisory Committee -Hamilton Region March of Dimes, and The Barrie-Toronto Train Passengers Association, in support of Ministry of Transportation leadership assisted by an advisory group or coordinating agency (TAG Options 2 and 3).

The other 2 submissions, from the Ontario Motor Coach Association and Transport 2000 Ontario, support the creation of an Interregional Transit Authority (TAG Option 4), separate from the Ministry of Transportation and charged with the lead role for coordinating all of the transit systems in the GTA.

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[1] The submission from the Community Services Advisory Committee of the Hamilton Region March of Dimes was also endorsed by:
- the Burlington Committee for the Physically Disabled
- the Disabled and Aged Regional Transit System of Hamilton-Wentworth
- the Oakville Committee for the Physically Disabled
- Path Employment Services in Hamilton

TABLE B-2

SUMMARY OF 9 SUBMISSIONS FROM

OTHER ORGANIZATIONS AND GROUPS

Issue	Number of Submissions Dealing with Issue	Position Supported	Number of Submissions Supporting Position
Institutional and Organizational Issues	6	• Ministry of Transportation Lead	4
		• TAG Option 1	1
		• TAG Options 2 and 3	3
		• TAG Option 4	2
Capital Projects/Service Expansion	8		
a) Major Capital Proposals	6	• Extension of GO Rail lines	4
		• Extension of subway/LRT lines	4
		• New bus routes and extensions	2
		• Special transit services/ technologies	2
b) Service Expansion	7	• Increased frequency and/or levels of service	6
		• Extended hours of service	4
Fare Integration/ Service Coordination	5	• Fare integration	3
		• Service coordination	4
Funding and Financial Issues	5		
a) System of Subsidies	3	• Distribution of long-term funding and provincial subsidies through the new agency	2
		• Consider inequities in provision of GO local bus service without local contribution of tax dollars	1
b) Cost Saving Measures	3	• More emphasis on lower cost transit (i.e. buses, streetcars and LRT technologies)	2
		• Privatization of certain transit facilities to relieve municipalities of some of the costs	2
Establishment of Regional Transit Authorities	1	• Responsible for planning and operating	1
Other Issues	4	• Road improvements as well as public transit	1
		• Coordination of land use and transportation planning	1
		• Parallel improvements in special transit services for disabled persons	2

Note: Numbers may not add due to overlapping.

Capital Projects/Service Expansion

8 of the 9 submissions propose either major capital projects or expansion and improvements to existing transit services. One of these (from the York Federation of Ratepayers) proposes "begining in the City of Toronto with the construction of a grid system of subways at two and a half mile intervals, adding surface rail lines on the concessions between, and extending this pattern throughout the GTA".

6 submissions support major capital proposals, 4 of these (from The Barrie-Toronto Train Passengers Association, Board of Trade of Metropolitan Toronto, Transport 2000 Ontario, and York Federation of Ratepayers) propose a variety of extensions to the GO Rail Network, and 4 (from Amalgamated Transit Union Local 113, The Board of Trade of Metropolitan Toronto, Transport 2000 Ontario, and the York Federation of Ratepayers) propose the construction of additional subway and light rail or rapid transit lines. 2 of the submissions (from Amalgamated Transit Union Local 113 and Transport 2000 Ontario), implicitly support new bus routes or extensions in their respective recommendations to "extend existing routes operated by the TTC" and "expand the GO system".

The 2 submissions from the Community Services Advisory Committee of the Hamilton Region March of Dimes and the TTC-Wheel Trans Community Committee of North York also propose capital investments in the form of special transit services for the disabled. The TTC-Wheel Trans Community Committee of North York recommends "using Transport Canada's 'accessobus' for wheelchair bound passengers and with minimal modifications, GO's bi-level railcars". Both of these organizations advocate the need for parallel intercity and/or interregional transit services for the disabled.

7 of the 9 submissions support service expansions. Most of these recommend increased levels of service (6 out of 7), or extended hours of service (4 out of 7), specifically on GO rail and GO bus lines.

The submission from The Barrie-Toronto Train Passengers Association recommends the use of shorter trains or "Budd cars" during off-peak hours and speedier, all-day service in both directions, on all GO Rail lines.

Fare Integration/Service Coordination

5 out of the total of 9 submissions propose varying degrees or elements of either fare integration or service coordination or both. Of the 3 submissions in support of fare integration, 2 (from Amalgamated Transit Union Local 113 and Transport 2000 Ontario) propose full fare integration on all cross-boundary routes. The third submission, from Transport Canada, and the submission from Transport 2000 Ontario, also recommend such elements as the use of "single fares", or "uniform tickets" based on a "fare-by-distance" system of payment across the 17 transit systems.

Similarly, 4 out of the 9 submissions (from Amalgamated Transit Union Local 118, The Barrie-Toronto Train Passengers Association, the Community Services Advisory Committee - Hamilton Region March of Dimes, and Transport 2000 Ontario) also recommend varying degrees of service coordination. The recommendations range from improving the interconnections between GO facilities only, through linking all intra-city and intra-regional systems to GO, to full service coordination on all cross-boundary routes.

Funding and Financial Issues

Funding and financial issues were also of concern to these community and business groups. 2 of the 5 submissions which deal with these issues (from the Ontario Motor Coach Association and Transport 2000 Ontario) propose that the new agency should be provided with the long term funding mechanisms for capital investments and the provincial subsidies to distribute to the 17 transit systems in the GTA.

This would fit with the establishment of an Inter-regional Transit Authority like TAG Option 4.

A third submission (from Amalgamated Transit Union Local 113) also urges that consideration be given to the inequities in the provision of local bus service by GO Transit without any local contribution of tax dollars.

3 out of the 5 submissions (from the Board of Trade of Metropolitan Toronto, the Ontario Motor Coach Association, and Transport 2000 Ontario) also propose some cost saving measures including privatization of certain transit facilities and more emphasis on lower cost types of transit.

Establishment of Regional Transit Authorities

Only 1 submission (from Transport 2000 Ontario) makes the recommendation "that municipal transit operations be assigned to regional governments for operations and local route planning".

Other Issues

4 out of the 9 submissions also make recommendations with respect to a number of other issues. As previously mentioned, 2 of these submissions (from the Community Services Advisory Committee of the Hamilton Region March of Dimes and the TTC-Wheel Trans Community Committee of North York) cite the need for parallel improvements in the coordination of special transit services for the disabled.

Another submission (from Transport 2000 Ontario) echoes the concerns of some of the transit operators and their municipalities who call for better coordination of land use developments and transportation planning. Still another submission (from the Board of Trade of Metropolitan Toronto) emphasizes the need for "road improvements as well as public transit".

C) SUBMISSIONS FROM THE PUBLIC

The Transit Advisory Group also received a total of 47 submissions from the public. Although a few of these were from people with professional training or knowledge in the transit planning or operating fields, the vast majority were from transit users themselves. Most of them wrote to TAG to make recommendations concerning the problems or difficulties that they regularly encounter as cross-boundary riders. The names of the submitters are listed alphabetically, as follows:

- Mr. Robert Anderson
- Anonymous
- Mr. James Biotsky
- Prof. L.S. Bourne
- Mr. M. Bruce
- Mrs. Kelly Chaffee
- Cheryl Hauser-Davis
- John C. Dawson
- D.M. Dineen
- Gordon Drake
- M.J. Chris Dunning

- Mr. Kevin J. Egan
- Alan C. Ellis
- D.J. Fader
- B.B. Gasee
- Mr. Terry Goodwin
- Ms. Janet Grant
- C.H. (Don Mills)
- Ms. Sharon Haniford
- Dr. Douglas Harding
- K.B. Hopkins
- Ms. Beryl W. Isaac
- Hans Jensen
- Mr. Gordon J. Kent
- Ms. Kirkman
- Charles L. Krowles, Ed. D.
- Ms. Margaret Lemon
- Mr. Walter K. Lis
- Elizabeth A Lomax
- Mr. G.E. Madden
- Mr. Karl Mallette
- Mr. Stuart McMinn
- Patricia McNiece
- Colin Moore
- Janice Moore
- Mrs. Olga Nisbet
- Ms. C.L.E. Oliphant
- Ms. Jennifer Parrot
- Mr. David Ranieri
- Mr. Ray W. Rysyk
- Mr. and Mrs. Sevcik
- Mr. R.P. Sikkai
- Mr. M. Smyth
- Margaret C. Thiessen
- W.G. Whittit
- Mr. J.M. Wood
- Ms. Florence Xerri

Table B-3 contains a summary of their submissions.

TABLE B-3

SUMMARY OF 47 SUBMISSIONS FROM

THE PUBLIC

Issue	Number of Submissions Dealing with Issue	Position Supported	Number of Submissions Supporting Position
Institutional and Organizational Issues	4	• Ministry of Transportation Lead	2
		• TAG Options 2 and 3	2
		• Amalgamation	2
Capital Projects/Service Expansion	35		
a) Major Capital Proposals	17	• Expand GO Rail/other rail lines	5
		• New/extended subway lines	11
		• New/extended light rail/ rapid transit systems	4
		• Expand/extend GO Bus/other bus systems	9
		• Other	2
b) Service Expansion	25	• Increased frequency/level of service	22
		• Extended hours of service	15
		including:	
		. later GO trains out of Union Station	11
		. later scheduling of bus services	5
		. faster, more direct bus routes	6
Fare Integration/ Service Coordination	25		
a) Fare Integration	13	• A fare and monthly pass system	2
		• A single ticket priced by distance/ travel zones	4
		• "Split Transfers"/unlimited transfers	2
		• Reduced fares on cross-boundary trips/ on local transit when using GO	3
b) Service Coordination	18	• Full coordination of transit services throughout the GTA	6
		• Coordinate GO Rail services (trains and station locations) with TTC (subway stations and bus services)	3
		• Better coordination of TTC and neighbouring municipal transit systems	4
		• Better coordination between GO Bus and other municipal/interregional bus services (i.e. timing and routing, scheduling, etc.)	6
Funding and Financial Issues	9		
a) System of Subsidies	1	• Stop subsidizing public transit below a certain level of services	1
b) Cost Saving Measures	7	• Rationalization of services to offset waste, duplication, etc.	4
		• Privatization of selected services to relieve some of the financial burden on municipalities	1
		• Increase ridership for cost-effectiveness	2
		• Use most cost-effective forms of transit	1
		• Costs of coordinating transit services etc., will be partly offset by reduced investments on roadways	2
Establishment of Regional Transit Authorities	1	• Responsible for planning/operating of local transit systems	1
Other Issues	3	• Parallel improvements in special transit services for disabled persons	1
		• Better coordination between land use and transportation planning	2

Note: Numbers may not add due to overlapping.

Institutional and Organizational Arrangements

Only 4 of the total of 47 submissions from the public deal with the institutional and organizational arrangements for coordinating inter-regional transit. These are primarily from persons knowledgeable about the planning, organization or operation of transit systems, owing to their professional training, work experience or interest in the field. 2 out of the 4 submissions, from Mr. Terry Goodwin and Mr. G.E. Madden, propose institutional arrangements similar to TAG Options 2 and 3, in which a body or agency would be appointed to serve in an advisory capacity to the Minister. The other 2 submissions, signed by Karl Mallette (a former member of the Toronto Transit Commission) and Gordon Drake, support the option of amalgamation. Mr. Mallette states that "the waste of duplication in Toronto, York, Peel, Durham transit authorities all of whom must satisfy MTC for subsidies demonstrates the need for amalgamation". Mr. Drake suggests "incorporating and integrating all municipal public transit systems in the GO Transit area into GO Transit".

Capital Projects/Service Expansion

A large majority of the submissions from the public (35 out of 47 submissions) deal mainly with proposed capital investments or service expansion and improvements. 17 out of the 35 submissions outline major capital proposals for new transit facilities. In descending order of popularity, these include whole new subway lines and extensions (11 out of 17 submissions); whole new bus routes and extensions for GO Bus and other interregional and municipal transit systems (9 out of 17 submissions); extending GO Rail and other railway lines such as VIA to Barrie, Niagara, London, etc. (5 out of 17 submissions); and more light rail transit lines, ranging from street cars on separate rights-of-way and trams, to the newer rapid transit system technologies (4 out of 17 submissions).

One of the submissions (from Mr. Gordon Kent), also recommends that GO train coaches be re-designed for better passenger comfort, including "more foot and luggage space, reclining seats, softer lighting and more standing room". In still another submission (signed anonymously), it was proposed that "bus route numbers should be painted on all bus stop posts".

25 out of the 47 submissions also support service expansion and improvements in existing rail and bus routes. 22 out of the 25 recommend "increasing the level and frequency of services" and 15 out of the 25 propose "extended hours of service" on GO Rail, GO Bus, and municipal bus routes. 11 out of the 15

submissions which support extended hours of service specifically request "later GO trains out of Union Station".

Two submissions provide a particularly strong indication of the extent of demand for more frequent and later hours of service on GO Rail. Attached to the submission from B.B. Gasee is a petition signed by 371 fellow passengers on the Richmond Hill line, requesting at least one or two later trains out of Union Station. The submission from Alan C. Ellis explains that "not one of his company's 115 employees could be persuaded to relocate in Brampton" and that the GO Train service there was "a major factor" in influencing their decisions.

Fare Integration/Service Coordination

25 out of the 47 submissions deal with the issues of fare integration and coordination of services. 13 of these request some form of "standardized or common fare structure" and "improved ticketing and transfers" between the various transit systems.

In the language of the users the most popular recommendations include "issuing passengers with a single ticket, priced by distance, or travel zones" (4 out of 13 submissions); and "reduced fares on cross boundary trips or on local transit when used with GO" (3 out of 13 submissions).

Of the 18 submissions which deal with the issue of service coordination, 6 recommend full coordination throughout the GTA. The remaining 12 submissions recommend varying degrees of coordination between GO Rail and the TTC; between the TTC and its neighbouring municipal transit systems; and between GO Bus and other municipal and interregional bus services. In most of these submissions the coordination of transit services means "faster, more direct bus routes", and "improved access or connections between transit systems", combined with "more frequent, flexible and extended hours of service" throughout the GTA. 3 of the submissions call for the physical integration of GO rail station locations with adjacent subway stations and major TTC and other municipal bus routes.

Funding and Financial Issues

9 of the 47 submissions from the public deal with funding or financial issues. The majority of these (7 out of 9 submissions) recommend mainly cost saving measures ranging from rationalization of services (4 out of 7) through increasing

ridership for cost effectiveness (2 out of 7) to privatization of selected services to relieve some of the financial burden on municipalities (1 out of 7).

Establishment of Regional Transit Authorities

1 of the submissions (from Prof. L.S. Bourne) directly recommends the establishment of regional transit authorities.

Other Issues

3 of the submissions make recommendations on other issues of concern. One of these, from Ms. Margaret Lemon, who is confined to a wheelchair, reminds TAG about the need for better coordination of special transit services for the disabled. The other 2 submissions are concerned with the problems of sprawling land developments, generally accompanied with insufficient levels of transit services and access. One of these, signed by C.H. (Don Mills), calls for limiting the extension of suburban bus transit as a means to control sprawling land developments. Instead, the submission supports the extension of subway lines in an incremental fashion and GO feeder buses in less developed areas.

SPECIAL PRESENTATIONS

Although not in the nature of submissions, TAG also received special presentations on matters of particular interest to the study from two outside consultants, Mr. Rod McDougall and Mr. Dawson Catton, both from the IBI Group.

Mr. McDougall's presentation was a summary of the key findings from a survey of fare integration in London, Tyne and Wear, the Netherlands, Rhine-Ruhr, Munich, Paris, Perth, San Francisco, and San Diego. This survey of foreign experience was part of the 1984 study of Transit Fare Integration in the Toronto Area conducted for the Ministry of Transportation and Communications by the IBI Group in association with J.W. Leas & Associates and Paterson Planning and Research Limited.

Mr. Catton's presentation dealt with his experience as the consultant involved in bringing about effective transit coordination in the Kingston area in Ontario. Having played a central role in the negotiations there, Mr. Catton pointed out various parallels between the Kingston experience and present circumstances in the Greater Toronto Area.

These presentations provided useful input to the study, augmenting that of the submissions.

CONCLUSION

The number and range of the submissions received are evidence of a widespread need for improved transit coordination throughout the Greater Toronto Area. The contributions of all the above submissions to the study are gratefully acknowledged.

APPENDIX C

MEETINGS WITH MUNICIPAL ADVISORS

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MEETINGS WITH MUNICIPAL ADVISORS

The Transit Advisory Group received valuable input from a group of municipal representatives appointed by their councils to advise TAG of municipal views and concerns regarding transit coordination. The Municipal Advisory Group was established at the Minister's request to represent the municipalities concerned with the study.

THE MUNICIPAL ADVISORY GROUP PROCESS

Early in November of 1986, the Minister wrote to the chairmen of the 6 regional municipalities in the GTA and the mayors of the 25 area municipalities with transit service in the area, inviting each council to appoint one or more elected representatives to serve as municipal advisors to the Transit Advisory Group. A total of 49 municipal representatives, including 4 alternates, were appointed.

In order to allow for fuller discussion, it was decided to divide the group into three parts and hold a separate initial meeting with each. Each of these took the form of a combined reception and meeting, hosted by the Minister and attended by all the members of TAG.

This initial round of meetings was held as follows:

Date/Time	Municipal Representatives	Place
January 27, 1987 6:00 p.m.-8:30 p.m.	from Metro Toronto and its area municipalities	L'Hotel, Toronto
February 12, 1987 6:00 p.m.-8:30 p.m.	from Durham and York regions and their area municipalities	Ramada Renaissance Hotel, Scarborough
February 25, 1987 6:00 p.m.-8:30 p.m.	from Peel, Halton and Hamilton-Wentworth regions and their area municipalities	Holiday Inn, Burlington

The informal reception portion of each meeting provided an opportunity for the municipal representatives to meet the Minister and the members of TAG and discuss some of their views on a one-to-one basis. The meeting proper allowed the Minister and TAG to outline the purpose and schedule of the study and the range of issues and organizational options being considered, and enabled the representatives to ask questions and express their views and concerns.

This first round of three meetings was followed by a single meeting of TAG with the Municipal Advisory Group as a whole, held from 4:00 p.m. to 6:00 p.m. on May 26th at the Skyline Toronto Airport Hotel in Etobicoke. This second and final meeting was at an advanced stage of the study when the findings were coming into focus. It enabled TAG to present a more detailed outline of the issues and concerns identified by the study, and to present the short list of options (TAG options 1 to 4) that had been selected for final evaluation. This presentation was followed by an open discussion which gave the municipal advisors an opportunity to express their reactions and concerns and to discuss the options. Their comments provided valuable feedback and input into the final selection process.

LIST OF MUNICIPAL ADVISORS

Tables C-1, C-2 and C-3 list the members of the Municipal Advisory Group and their alternates, and show the attendance at the various meetings with an X. The tables are organized according to the three initial meetings, with C-1 covering the representatives from Metro and its area municipalities, C-2 the representatives from Durham and York and their area municipalities, and C-3 the representatives from Peel, Halton and Hamilton-Wentworth and their area municipalities. Those marked with an asterisk represented their municipalities at the meetings shown, although they had not originally been appointed as municipal advisors.

TABLE C-1

MEETINGS WITH
MUNICIPAL ADVISORS FROM METROPOLITAN TORONTO
AND ITS AREA MUNICIPALITIES

	Minister's Reception and Meeting January 27, 1987	Second Meeting with TAG May 26, 1987
METROPOLITAN TORONTO		
• Chairman C. Dennis Flynn	X	
• Controller Lois Griffin, Chairperson Metropolitan Transportation Committee	X	X
• Julian Porter, Outgoing Chairman Toronto Transit Commission		
• Jeffrey Lyons, Incoming Chairman Toronto Transit Commission		
• Councillor Tom Jakobek, Member Toronto Transit Commission		
• Other TTC representatives*		X
EAST YORK		
• Alderman J. Edna Beange	X	
• Mayor David Johnson (alternate)		
• Alderman Peter E. Oyler (alternate; on Metro Council)		
ETOBICOKE		
• Controller Lois Griffin (on Metro Council)	X	X
NORTH YORK		
• Alderman J. McGuffin (on Metro Council)	X	
SCARBOROUGH		
• Controller Frank Faubert (on Metro Council)	X	
• Alderman Florence Cruickshank	X	
• Alderman Edith Montgomery		
TORONTO		
• Mayor Art Eggleton	X	
• Councillor Tom Jakobek (on Metro Council and TTC)		
• Alderman Nadine Nowlan	X	X
YORK		
• Mayor Allan Tonks	X	
• Alderman Gary Bloor (alternate)		X
• Alderman Bill Saundercook (alternate)		X

*The other TTC representatives were staff officials who represented the TTC at the May meeting although they had not originally been appointed as municipal advisors. They included: Al Leach, the newly appointed Chief General Manager; Nelson Melynck, Manager, Corporate Planning; Lynn Hilborn, Director, Government Relations and Corporate Liaison; and Charles Wheeler, Senior Policy Analyst.

TABLE C-2

MEETINGS WITH
MUNICIPAL ADVISORS FROM DURHAM AND YORK REGIONS
AND THEIR AREA MUNICIPALITIES

	Minister's Reception and Meeting February 12, 1987	Second Meeting with TAG May 26, 1987
DURHAM REGION		
• Chairman Gary Herrema	X	
AJAX		
• Councillor Roger M. Anderson	X	X
OSHAWA		
• Councillor John Aker (on Durham Council)	X	X
PICKERING		
• Mayor John E. Anderson	X	
• Councillor Robert Mitchell (on Durham Council)	X	
• Councillor Norah Stoner (on Durham Council)		
WHITBY		
• Mayor Robert A. Attersley	X	
YORK REGION		
• Chairman Eldred King	X	
• John Ireland, Deputy Commissioner of Transportation*		X
AURORA		
• Mayor John West	X	
MARKHAM		
• Councillor Gordon Landon, Chairman Markham Transit Committee	X	X
• Councillor Doreen Quirk		
NEWMARKET		
• Councillor Bob Scott (on York Council)	X	
• Councillor Diane Humeniuk		
VAUGHAN		
• Mayor Lorna D. Jackson		
• Jim Kimble, Manager Vaughan Transit*	X	
RICHMOND HILL		
• Mayor Allan Duffy	X	X

*Those marked with an asterisk represented their municipalities at the meetings shown, although they had not originally been appointed as municipal advisors.

TABLE C-3

MEETINGS WITH
MUNICIPAL ADVISORS FROM PEEL, HALTON AND HAMILTON-WENTWORTH REGIONS
AND THEIR AREA MUNICIPALITIES

	Minister's Reception and Meeting February 25, 1987	Second Meeting with TAG May 26, 1987
PEEL REGION		
• Chairman R. Frank Bean		
• Mayor Hazel McCallion	X	X
• Councillor Nancy Porteous	X	X
• Doug Thwaites, Director Transportation Policy*	X	X
BRAMPTON		
• Councillor Nancy Porteous (on Peel Council)	X	X
• Alderman Harry Chadwick*		X
• Glen Marshall, Manager Brampton Transit*	X	X
MISSISSAUGA		
• Mayor Hazel McCallion	X	X
HALTON REGION		
• Chairman Peter Pomeroy	X	
• Councillor Pat McLaughlin	X	X
BURLINGTON		
• Alderman Walter Mulkewich, Chairman Public Works Committee (on Halton Council)	X	
• Councillor Pat McLaughlin (on Halton Council)	X	X
MILTON		
• Mayor G. Krantz	X	X
OAKVILLE		
• Councillor Paul Farley		
HAMILTON-WENTWORTH REGION		
• Chairman William L. Sears	X	
• Mayor Robert E. Wade, Chairman Transportation Services Committee	X	
• Heinz Schweinbenz, Commissioner of Transportation*		X
ANCASTER		
• Mayor Robert E. Wade	X	
• Councillor Lloyd D. Ferguson	X	
DUNDAS		
• Mayor Mary Ann Seldon	X	
FLAMBOROUGH		
• Mayor James A. Smith	X	X
• Councillor Herb Lawson		
HAMILTON		
• Mayor Robert Morrow	X	
• Alderman Shirley Collins (on Hamilton-Wentworth Council)	X	
• Alderman Willian McCulloch (on Hamilton-Wentworth Council)	X	
• Alderman Henry Merling (on Hamilton-Wentworth Council)	X	
STONEY CREEK		
• The Regional representatives were appointed to represent Stoney Creek	X	X

*Those marked with an asterisk represented their municipalities at the meetings shown, although they had not originally been appointed as municipal advisors.

APPENDIX D

EXPERIENCE ELSEWHERE

APPENDIX D

EXPERIENCE ELSEWHERE

Experience with transit coordination in large urban-centred areas elsewhere in the world was studied in two ways. The first was through a review of the findings of other studies which recently investigated such experience. The second was through research carried out by TAG itself on a number of areas in North America.

The other studies which were reviewed are discussed briefly first, then the findings of TAG's research are presented.

REVIEW OF OTHER STUDIES

Two studies recently carried out for the Ministry of Transportation were reviewed. The first was the **Study of Inter-Regional Transit Coordination in the Greater Toronto Area,** by Paterson Planning and Research Limited.

The Working Paper published by this study in 1983 examined organizational arrangements for transit coordination in Hamburg and Munich in West Germany, in Los Angeles and Chicago in the United States, and in Montreal. The findings, in summary form, will be found in Appendix H of the Working Paper.

The second was the **Study of Transit Fare Integration in the Toronto Area -Phase II,** by the IBI Group in association with J.W. Leas & Associates and Paterson Planning and Research Limited.

Volume 2 of this study, published in 1984, is titled **Review of Developments in Other Jurisdictions,** and covers the experience with fare integration in London, England; Tyne and Wear, England; the Netherlands; the Rhine-Ruhr area, West Germany; Perth, Australia; San Francisco, U.S.A.; and San Diego, U.S.A.

This is a comprehensive review running to more than 90 pages. A summary of the findings will be found in the first chapter.

RESEARCH CARRIED OUT BY TAG

TAG investigated the arrangements for transit coordination in Montreal, British Columbia, Chicago, New York, San Franciso, Los Angeles, and San Diego. Chicago and New York were studied most thoroughly, and the Group paid a one-day visit to each of them to see the situation first-hand and discuss the arrangements directly with the key officials involved. Contact with the others was by mail and telephone.

Table D-1 lists the principal agencies and officials contacted in each of the above areas.

The main findings with regard to each area are summarized below, starting with Chicago and New York.

SUMMARY OF MAIN FINDINGS

Chicago

- The Chicago situation is basically similar to the Toronto situation, both in terms of geography -- a city on a lake -- and in terms of transit operators -- the Chicago Transit Authority (CTA) being equivalent to the TTC, Metra (the Commuter Rail Division) to GO Transit, and the suburban bus systems under Pace to the suburban bus systems in Durham, York, Peel and Halton. One significant difference is the Hamilton-Wentworth system serving a second major city here.

- The Regional Transportation Authority (RTA) is an area-wide body that does not operate but controls the 3 operating agencies, referred to as service boards: CTA, Metra and Pace. Virtually all funding passes through RTA and RTA has to meet a State-mandated 50% revenue-to-cost ratio for the overall system.

- RTA's primary goals are financial control — living within the available funding -- and rehabilitation of a very large system much of which is old and has suffered seriously from past underfunding. They are evidently making major progress toward both these goals.

- With these preoccupations, fare and service integration have not been given high priority and are less than ideal, though they may receive more attention in future.

TABLE D-1

PRINCIPAL AGENCIES AND OFFICIALS CONTACTED REGARDING EXPERIENCE ELSEWHERE IN NORTH AMERICA

	AGENCIES	OFFICIALS
Montreal	Quebec Ministry of Transportation General Directorate Passenger Ground Transportation Studies Department	Michel Auclair
British Columbia	B.C. Transit	Robert Lingwood, Senior Vice President
Chicago	Regional Transportation Authority	Theodore G. Weigle Jr., Executive Director John Gaudette, Chief Financial Officer Joanne Schroeder, Chief Planning Officer
	Chicago Transit Authority	Robert Paaswell, Executive Director Darwin Stuart, Manager of Strategic Planning Dennis Ryan, Director of Route and System Planning Cheri Heramb, Management and Program Analysis Coordinator
	Pace, the Suburban Bus Division	James Jarzab, Manager Strategic Planning
	Metra, the Commuter Rail Division	Michael Nielsen, Assistant to the Executive Director
	Northeastern Illinois Planning Commission	Phillip Peters, Deputy Director
	North Suburban Mass Transit District	Robert Benton, Trustee and Past Chairman
New York	Metropolitan Transportation Authority	Mort Downey, Executive Director and Chief Financial Officer Andrew Hyde, Director of Public Affairs Greg Johnson, Director of Planning
	New York City Transit Authority	David Gunn, President Howard Benn, Assistant Vice President-Operations Planning Harold Wallace, Director of Special Projects Ned Towle, Director of Planning and Budget
San Francisco	Metropolitan Transportation Commission	Larry Dahms, Executive Director Brenda Kahn, Special Assistant to the Executive Director
Los Angeles	Los Angeles County Transportation Commission	Rick Richmond, Executive Director
	Southern California Rapid Transit District	Gary Spivack, Director of Planning
San Diego	Metropolitan Transit Development Board	Thomas Larwin, General Manager

- Planning coordination has not been a great concern because few major new facilities are planned, and most of them have been on the books for some time.

- The RTA was reorganized in 1983, partly to give the suburbs more control of the operations that serve them (commuter rail and suburban bus systems) and overcome their feeling that the suburbs were supporting CTA, partly to get RTA out of direct operations, and partly to get better control over total funding. While these objectives appear to have been realized, the result was evidently to give the service boards too much autonomy, reducing the clout of RTA. One by-product is that there is apparently less fare integration now than there was before the reorganization.

- Although virtually all funding passes through RTA, 85% of the sales tax revenue earmarked for transit must be passed through to the operators, and 85% of the sales tax revenue from the City of Chicago must go to the CTA. Thus the funds which RTA can distribute with discretion are quite limited, reducing the leverage it can exert on the service boards.

- However the 50% revenue : cost requirement and the requirement that all capital expenditures over $250,000 must be in the RTA-approved 5-year capital program give a lot of ultimate power to RTA.

- The RTA board of directors and the 3 service boards are all composed differently (the Pace board is all mayors, the other boards are evidently all non-elected individuals, though they don't have to be). There is also apparently only one individual who sits on two boards: the CTA Chairman who must also be a member of the RTA board. There is thus virtually no built-in mechanism for coordination at the board level.

- No municipal subsidies are required except for the sales taxes collected in a municipality which are earmarked for transit. This means municipal councils have no direct financial stake in transit decisions.

- The overall system is essentially all-inclusive, i.e., every significant operator in the area is under one of the service boards and the RTA.

- In spite of the autonomy given the service boards and the fact that the RTA Act is vague on RTA's planning authority, RTA assumes it has the authority to undertake strategic area-wide system planning, and is attempting to do so through its 5-year capital plans.

- The relationship with land use planning leaves much to be desired however. Although the first regional plan prepared by the Northeastern Illinois Planning Commission in 1967 was very transit-oriented, zoning control rests mainly with local municipalities, and outside the City of Chicago there are 261 of these with an average population of only about 5,000. Getting transit-oriented development in the suburbs is therefore very difficult, although some progress is being made through cooperation with municipalities and developers in a number of key locations.

New York

- Although the geography, the scale of the overall transit system, and the nature of the problems is very different, there is a similarity between the transit operators in greater New York and greater Toronto with the New York City Transit Authority (NYCTA) being roughly equivalent to the TTC, the 2 commuter railroads equivalent to GO Transit, and the bus operators under the Suburban Bus Authority equivalent to the suburban bus systems in Durham, York, Peel and Halton.

- The Metropolitan Transportation Authority (MTA) is an area-wide body that does not operate but controls the operating agencies. Virtually all funding for these agencies passes through it, and it is charged with overall responsibility for financial management and service performance.

- MTA's primary goals are to rehabilitate a vast system that had fallen into serious disrepair through severe underfunding over a long period of time, and to exert effective financial control. They are evidently making major progress toward both these goals.

- Given these preoccupations, little attention has been paid to fare and service integration, which evidently leave much to be desired. However this must be viewed in the context of $24 a day for parking and toll charges, which makes even full double fares look cheap in comparison.

- Planning coordination has not been a major concern because few new facilities are planned.

- Although the MTA organizational structure for transit appears similar to that of the RTA in Chicago, there are actually two major differences: the operating boards under MTA do not have the statutory autonomy given to those under RTA; and the MTA board also serves as the board of each of its operating agencies, the membership being identical in each case. These differences mean that MTA has much more effective control over its operating arms than RTA does.

- In spite of this, the MTA management philosophy delegates virtually all line decisions to the operators, leaving them perhaps more free to run their own shows as long as objectives are met.

- MTA is the authority that sets fares, but there is no mandated revenue : cost ratio like the 50% requirement in Chicago.

- Though virtually all funding passes through MTA, almost all of it is earmarked for one or another of the operating arms. MTA just received its first significant discretionary funding, $50 million given to MTA to use as it sees fit.

- Unlike Chicago, there are significant municipal funding contributions for both operating and capital purposes, mostly from the City of New York.

- The system under MTA and its service boards is not all-inclusive, as a number of bus operators are left out, some of them in the City (in Queens) and some of them in the suburbs. Those in the city are said to account for some 20% of city bus ridership.

- MTA's role is to set policy, manage funding, and carry out strategic planning for the entire system under its control. This leaves the operating agencies responsible for operations, service planning, and construction.

- MTA sees strategic planning as one of its most important functions, and is preparing comprehensive medium-to-long-term plans to rationalize all major components of the system under both optimistic (present level) and

pessimistic funding scenarios. It has established clear goals and guidelines, and is incorporating system planning, financial planning and market planning in the overall strategic planning initiative. Operational planning is not done by MTA but by the line agencies.

- The aim is then to meld strategic planning, operational planning and marketing in the overall corporate effort to improve service and increase ridership.

- The planning process is assisted by input from 3 mandated community councils which express the views of consumers and citizens. The 3 come together in one overall community advisory group.

- MTA's transit planning is coordinated with overall transportation planning and regional land use planning through contacts with other agencies, but the coordination is evidently often less than ideal. However the densities throughout much of the region appear to be high enough to support good transit service.

- From a management point of view, MTA has placed major emphasis on building a strong management team in all its agencies, with particular attention to middle management. The approach is to set the objectives, delegate responsibility, and require effective performance. Judging from the dramatic turnaround evident in the subway system, the approach is proving to be effective.

British Columbia

The following description is based on information provided by Robert Lingwood, Senior Vice President of B.C. Transit.

- B.C. Transit is a provincial agency responsible for all transit planning, right down to routes and schedules.

- In Vancouver and Victoria there are transit commissions which decide on service areas and levels.

- Elsewhere, local councils make the service decisions.

- In Vancouver and Victoria, B.C. Transit owns and operates all transit, under an agreement with the municipality in each case.

- In other municipalities, B.C. Transit owns all the assets, but operation is contracted out under a three-party agreement involving B.C. Transit, the municipality, and the operator.

- The agreements run for five-years, and they are now into their second five-year period.

- The agreements specify the budget, service levels, and responsibilities of each party on a year-by-year basis.

- Decisions on fare levels are made locally like the decisions on service levels.

- B.C. Transit has overall financial control. Where operation is contracted, B.C. Transit pays the operator, then bills the muncipality for its share according to the agreement.

- B.C. Transit does all the accounting, and provides other central services of the type that smaller municipalities could not afford to provide for themselves.

- All transit information is kept in a central repository by B.C. Transit.

Montreal

The following information is extracted from material provided by Mr. Michel Auclair, Studies Department, Passenger Ground Transportation, General Directorate, Quebec Ministry of Transportation.

- There are 25 public transit bodies in the greater Montreal area. They may be separated into two different categories: public transit authorities (P.T.A.) and municipal or intermunicipal transit agencies (M.I.T.A.).

- There are three P.T.A.s in the Montreal area, all of them located in the heart of the urbanized area: the Montreal Urban Community Transit Corporation (M.U.C.T.C.), the Montreal South Shore Transit Corporation (M.S.S.T.C.) and the City of Laval Transit Corporation (L.T.C.). The total area of the

municipalities which constitute these three P.T.A.s is 970 km^2 and they have a population of approximately 2.2 million.

- There are also 22 recently created M.I.T.A.s in the area, located on the outskirts of the urbanized center. They regroup approximately 150 municipalities (suburban towns, satellite cities and rural municipalities) with a total population of 1.0 million and covering an area of over 4,000 km^2. These M.I.T.A.s include 19 Intermunicipal Transit Councils (I.T.C.) and three municipalities which organize services on their own.

- P.T.A.s and I.T.C.s are both entirely controlled by local elected officials. They assume full power of initiative and are solely responsible for funding services (and collecting government subsidies) as well as determining fare structures, service levels and quality. A fundamental difference between their powers is that an I.T.C., unlike a P.T.A., does not itself operate a transport service but must entrust the operation to one or more carriers by contract concluded with one of the following: a P.T.A., a private carrier, a taxi permit holder or a school bus operator.

- A mass transit grant program is directed to P.T.A.s and M.I.T.A.s which organize and finance transit systems. Three main subsidy categories make up the program:
  - an operating subsidy, essentially based on passenger revenues generated;
  - a specific monthly pass subsidy;
  - a capital investment subsidy.

  Transit bodies may also benefit from grants concerning special transportation for disabled persons.

- The operating subsidy equals 40% of passenger revenues provided by regular services. In order not to penalize transit bodies, reduced fares generate the same grant level as would regular fares.

- In order to be subsidized, specific monthly passes must provide unlimited access to the regular service network and confer a fare reduction which may reach up to 40% of the price of 50 trips at regular fares of each category for

P.T.A.s, and 42 trips for M.I.T.A.s. In 1986, the subsidy was equal to 100% of the reduction, up to a maximum discount of 30% for M.I.T.A.s and 24% for the three P.T.A.s of the Montreal area.

- In 1987, the operating subsidy can not exceed 85% of the municipal contribution for Montreal area P.T.A.s. Moreover, the total amount of the operating and specific monthly pass subsidies must not exceed 120% of the municipal contribution. For M.I.T.A.s, the total amount of these subsidies must not exceed 75% of the operating deficit.

- The capital investment subsidy is as follows:
  a) directed at P.T.A.s
     - 75% of the total expenses incurred in the acquisition of buses, passenger shelters, garages, terminals and private transit companies for the establishment or expansion of urban public transit networks;

     - 100% of the cost of rapid transit systems (subway, light rail, commuter trains). The subsidy equals 60% of the debt service for works carried out before January 1st, 1980;

  b) directed at M.I.T.A.s
     - 75% of the cost of passenger shelters.

- The mass transit grant program also provides financial assistance related to fare compensation programs (for transit bodies which allow fare reductions to commuters using more than one transit network), studies and experimental projects.

- With regard to commuter rail services, there are three lines in the Montreal region. Two of them are operated under separate contracts with the M.U.C.T.C., one by CN and one by CP. The third is operated by CN with an annual provincial subsidy.

- The fact that all three lines reach beyond the limits of the legal territory of the M.U.C.T.C. (the only P.T.A. which organizes commuter train services), two of them extend over the territory of a second P.T.A. and each of the

three over the territory of a different I.T.C., entails interface financial and organizational problems which will need to be dealt with promptly in order to ensure optimal performance, coordination and upgrading of services.

These problems originate from the fact that local officials representing I.T.C.s and non organizing P.T.A.s do not participate in any part of the decision making process although their constituents may benefit from commuter rail services.

San Francisco

The following information is extracted from material provided by Brenda Kahn, Special Assistant to Larry Dahms, the Executive Director of the Metropolitan Transportation Commission.

- The Metropolitan Transportation Commission (MTC) is responsible for developing a regional transportation plan and reviewing all applications for state and federal transportation grants in the nine-county San Francisco Bay Area, which covers 7,000 square miles and has a population of 5.6 million.

- There are 23 public transit operators in the area, the most important in terms of ridership being the San Francisco Municipal Railway (Muni), Alameda and Contra Costa Transit (AC Transit), and Bay Area Rapid Transit (BART). Total weekday ridership on all 23 systems is about 1,550,000.

- MTC distributes or approves the spending of over a half billion dollars a year, the bulk of it going to the transit operators. MTC also monitors the operators' budgets and audits their performance. MTC's oversight role is particularly strong with regard to BART, AC Transit and San Francisco Muni because of a special act of the Legislature.

- MTC works with the transit systems in a cooperative fashion, the vehicle being a Transit Operator Coordinating Council that meets monthly. The most visible product of this cooperative approach is the annual Transit Capital Priorities, by which MTC and the transit operators come to agreement on how to best spend the state and federal capital monies flowing to the region. Nonetheless, the legislatively prescribed duties together with MTC's funding abilities gives the Commission considerable authority over how the Bay Area's transit network functions.

- MTC has a staff of some 85 persons headed by an Executive Director. Policy direction is provided by an 18-member panel consisting of appointed representatives of the 9 Bay Area counties (the 5 more populous counties have two members each, the four other counties have one representative each) as well as representatives from other regional agencies and the state and federal governments.

- For the most part, the transit operators handle the day-to-day planning and running of their service. However, MTC is there to ensure that the Bay Area's diverse public transit systems are working together to provide integrated service. To this end, MTC has worked with the transit operators to develop a number of bus/rail joint fare instruments, the most recent being an AC Transit/BART Plus pass. MTC's role in this area is particularly strong with regard to the financially and geographically intertwined AC Transit, BART and San Francisco Muni. A special MTC committee ensures that these three operators raise fares in concert and equitably share in the subsidies available to them.

- MTC is also working to smooth the way for passengers transferring between systems -- a project is now under way to install Transit Information Centers at key inter-system transfer points. MTC's Regional Transit Guide compiles information on routes, fares and schedules for all of the Bay Area's transit systems, while the "Best of the Bay Area by Public Transit" is a handy guide for tourists and residents.

- MTC is also involved in long-range planning for the region's transit operators, particularly in the area of rail extensions. MTC is now coordinating a number of in-depth corridor studies that will have far-reaching implications for where new light and heavy rail lines will be built, and where express and local bus service will be beefed up.

- MTC is itself engaged in an in-depth study of institutional arrangements among transit systems in the San Francisco Bay Area. At the time of TAG's contact, the final phase of the study was expected to wrap up shortly.

Los Angeles

The following information is extracted from material provided by Rick Richmond, Executive Director of the Los Angeles County Transportation

Commission (LACTC), and Gary Spivack, Director of Planning of the Southern California Rapid Transit District (SCRTD).

- The SCRDT was created in 1964 to consolidate, unify, operate and improve the existing bus system in Los Angeles County, and to plan, design, construct and operate a modern rapid transit system.

- In 1976 the LACTC was added to improve the decision-making process in the county. It is responsible for setting policies, establishing funding priorities, and coordinating activities between the various transportation operators and agencies in the county. It is vested with the responsibility of allocating federal, state and local government funds.

- In addition to the SCRTD, there are 12 municipal transit operators in the area who provide subregional, and in some cases regional bus services for their cities. Their combined weekday ridership totals less than 200,000 compared to over 1,400,000 for the SCRTD.

- The LACTC is composed of 11 members: the five County Supervisors; the Mayor of Los Angeles; a member of the Los Angeles City Council; a member of the Long Beach City Council; two members of the League of California Cities, representing the 82 other cities in the county; and a private citizen appointed by the Mayor of Los Angeles and approved by the City Council. In addition, the Regional Director of the California Department of Transportation sits on the Commission as a non-voting member.

- In 1980, "Proposition A" was passed establishing a half-cent sales tax for transit and approving the construction of a 150 mile rail transit network to serve the county. LACTC was given responsibility for programming the revenues for public transit improvements and for designing the rail transit network.

- Under Proposition A, 25% of the money is returned to the cities for their local transit needs, 35% must be used for construction of the rail transit system, and the remaining 40% is discretionary money, which LACTC has decided will be used to keep bus fares as low as possible through 1986 and 1987.

- The LACTC has four major divisions: Programming and Fiscal Analysis, which includes Transit Programs, Highway Programs, Paratransit Programs, and Proposition A Local Return Programs; Transit Development, which includes the rail planning section as well as the project team for a Long Beach-Los Angeles Rail Transit Project; Government and Public Affairs, which includes Community Relations, Communications, and Intergovernmental Relations; and Finance and Administration, which handles the agency's budgetary and personnel functions.

- LACTC also monitors the performance of all the transit systems in the area under a measurement program, which awards bonuses for better performance.

- Generally speaking, the division of responsibilities between LACTC and the operators is as follows:

  Fund Allocations: LACTC
  Bus Service Planning: SCRTD and other operators
  Rail Transit Planning: LACTC
  Transit Operations: SCRTD and other operators
  Service Coordination/Fare Integration: initiated by operators; oversight and dispute resolution by LACTC.

- Because of these parallel decision-making responsibilities, there has been a growing concern that the present institutional arrangement may be unable to bring about the overall coordination that is needed. As a result, legislation was pending at the time of TAG's contact which would modify the relationship between LACTC and SCRTD to, in effect, make SCRTD an operating subsidiary of LACTC.

San Diego

The following information is extracted from material provided by Thomas Larwin, General Manager of the Metropolitan Transit Development Board (MTDB) in San Diego.

- The MTDB was created in 1975 to plan, construct, and operate mass transit guideways and to perform near-term planning. It has evolved into an umbrella organization with broad transit development, planning, programming, and financing powers.

- The MTDB has an area of jurisdiction of approximately 570 square miles with a population of about 1.56 million, roughly 75% of the San Diego County population.

- MTDB owns:
  - San Diego Trolley, Inc. (SDTI), a light rail transit operator
  - San Diego Transit Corporation (SDTC), a bus operator
  - San Diego & Arizona Eastern Railway Co. (SD&AE), a railroad covering over 108 miles of track.

  The SDTI and the SDTC are the area's two largest operators.

- MTDB also coordinates the activities of the 14 other operators in the area, comprising 5 suburban fixed-route bus operators, 4 general service dial-a-ride operators, and 5 dial-a-ride operators serving seniors and disabled persons.

- Total annual passengers reached a peak of about 37 million in 1978, dropped to just over 30 million in 1983, and recovered to nearly 36 million in 1986.

- The overall farebox recovery rate for all the MTS operators reached a peak of about 45% in 1982, dropped to just over 42% in 1983, and recovered to better than 45% in 1986. For the San Diego Trolley the 1986 recovery rate was over 90% and the aim is to reach 100% by 1990.

- MTDB, with assistance from the operators, annually updates the area's short range transit plan and its five-year transportation improvement program.

- Through various legislative provisions, MTDB administers operators' claims for funds derived from state sales taxes, is the grantee for federal funds, determines the routes, fares, frequency of service and hours of operation for all regional services, coordinates fares, transfers and schedules among all the operators, and is authorized to resolve disputes with regard to regional service and funding matters.

- The Board's objective is to present the region's riders with an integrated system that is easy to use. Accomplishments to date include a unified fare system, transfers among all the operators, a regional monthly pass, a regional public information system and telephone number, a standardized way of

numbering all transit routes, and a comprehensive county-wide route map called the Regional Transit Guide.

- To build public awareness of this unified approach, a common name and logo was adopted for the overall system in 1985: The Metropolitan Transit System or MTS. This name and symbol will be used by all the operators to portray unity to the riding public.

CONCLUSION

There is a common theme that runs through virtually all of the experience reviewed elsewhere in the world. This is that there are many successful ways of obtaining the benefits of overall integration and coordination without amalgamating a variety of operators into a single system, but they all require some sort of coordinating agency and don't rely on voluntary cooperation alone.

APPENDIX E

URBAN TRANSIT
SERVICE AREA POPULATION

APPENDIX E

URBAN TRANSIT SERVICE AREA POPULATION

The urbanized area of a municipality that is eligible for provincial transit subsidies is designated as the urban transit service area of that municipality. The urban transit service areas in the GTA are shown on Map 1 in chapter 3 of the report.

The population of each urban transit service area is reported by the municipality to the Ministry of Transportation and the figures are given in the Ontario Urban Transit Fact Book published annually by the Ministry of Transportation and the Ontario Urban Transit Association.

Table E-1 shows the 1985 urban transit service area population as a percent of total population for the municipalities that provide transit service.

TABLE E-1

TRANSIT SERVICE AREA POPULATION
AS A PERCENT OF TOTAL POPULATION
IN THE GREATER TORONTO AREA, 1985

Region - Transit System	Estimated or Actual Population within Service Area	% of Total Service Area Population	Total Population of Municipality	Service Area Population as % of Total Population of Municipality
Metro Toronto				
T.T.C.	2,154,537	57.65	2,154,537	100.0
Durham				
Oshawa	121,669	3.25	121,669	100.0
Pickering	35,000	0.94	45,758	76.5
Ajax	32,500	0.87	33,763	96.3
Whitby	39,640	1.06	44,241	89.6
	228,809	6.12	245,431	93.2
York				
Markham	95,000	2.54	105,341	90.2
Vaughan	38,100	1.02	56,766	67.1
Newmarket	33,186	0.89	33,186	100.0
Richmond Hill	41,000	1.10	44,358	92.4
Aurora	19,438	0.52	19,438	100.0
	226,724	6.07	259,089	87.5
Peel				
Mississauga	349,000	9.34	359,495	97.1
Brampton	170,000	4.55	177,675	95.7
	519,000	13.89	537,170	96.6
Halton				
Burlington	114,000	3.05	115,593	98.6
Oakville	83,000	2.22	83,214	99.7
Milton	25,000	0.67	30,988	80.7
	222,000	5.94	229,795	96.6
Hamilton-Wentworth				
H.S.R.	386,277	10.33	421,264	91.7
Subtotal Durham, York, Peel, Halton, and Hamilton-Wentworth	1,582,810	42.35	1,692,749	93.5
Total	3,737,347	100.0	3,847,286	97.1

Sources: 1985 Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association, for service area population figures. Figures obviously intended to equal total population of the municipality but differing slightly are assumed to represent 100%; these are evidently overstatements in Oshawa, Newmarket and Aurora, where the service areas do not cover the entire municipality.

Ontario Ministry of Municipal Affairs, Municipal Directory 1986, for 1985 total population figures.

APPENDIX F

CHANGE IN
OPERATING AND FINANCIAL CHARACTERISTICS
1981-1985

APPENDIX F

CHANGE IN
OPERATING AND FINANCIAL CHARACTERISTICS
1981-1985

Table F-1 shows the change in operating characteristics over the 4 year period from 1981 to 1985, and Table F-2 shows the comparable change in financial characteristics.

Table F-1 should be read in conjunction with Table 2 in the report, and Table F-2 in conjunction with Table 3.

TABLE F-1

CHANGE IN OPERATING CHARACTERISTICS OF TRANSIT SYSTEMS IN THE GREATER TORONTO AREA 1981 - 1985

Transit System	Passengers[1]		Revenue Vehicle Km		Employees[2]	
	Absolute Change 000	% Change	Absolute Change 000 Km	% Change	Absolute Change	% Change
Toronto Transit Commission	37,640	9.5	14,179	8.3	495	5.7
Hamilton Street Railway	938	3.3	-2,194	-14.1	-31	-3.8
GO Transit[3]	3,576	16.0	2,458[4]	18.5	278	26.4
Mississauga	1,396	11.2	-256	-3.0	95	28.3
Brampton	576	14.4	733	30.2	18	17.1
Oshawa	392	11.9	178	9.8	19	24.1
Burlington	-80	-3.3	33	1.7	-4	-4.9
Oakville	19	0.8	182	12.8	11	16.7
Markham	261	15.9	180	14.8	-1	-2.2
Vaughan	540	74.7	202	46.8	6	75.0
Pickering	233	62.6	-220	-23.6	2	4.9
Newmarket	76	23.8	0	0.0	3	30.0
Ajax	56	20.0	75	75.8	N/A	-
Whitby	101	62.7	104	46.8	6	66.7
Richmond Hill	102	82.3	32	13.1	N/A	-
Milton	25	18.0	-30	-19.4	N/A	-
Aurora	5[5]	5.8	0	0.0	N/A	-
TOTAL NET CHANGE	45,856	9.7	15,656	7.1	897	8.0

N/A = Not available due to lack of employment data for 1981.

(1) Based on initial board passengers paying full fare, reduced fare or free fare; excludes all transfer rides and charter rides.

(2) The calculation of "Total Net Change" in number of employees excludes those systems where 1981 data was not available.

(3) GO figures calculated from fiscal years ending March 31/82 and March 31/86; all other figures on table are calculated from 1981 and 1985 calendar years.

(4) 1985 GO figure is based on "Total Vehicle Km", which has traditionally approximated "Revenue Vehicle Km".

(5) Aurora "Total Pasengers" not available. Figures were calculated from "Weekday Ridership Profile" as obtained from Travelways, and adjusted for weekends and holidays by TAG.

Sources: 1981 and 1985 Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association, for municipal systems.
GO Transit Annual Report for years ending March 31/82 and March 31/86 for GO system.

TABLE F-2

CHANGE IN OPERATING EXPENDITURES, REVENUES AND SUBSIDIES OF TRANSIT SYSTEMS IN THE GREATER TORONTO AREA 1981 - 1985

Transit System	Total Operating Expenditure		Total Operating Revenue		Operating Subsidies				Revenue to Expenditure Ratio	
					Municipal		Provincial[1]			
	Absolute Change $000	% Change	Absolute Change $000	% Change	Absolute Change $000	% Change	Absolute Change $000	% Change	Absolute Change In Percentage Points	% Change
Toronto Transit Commission	129,425	43.1	84,777	41.0	21,195	44.9	23,453	50.9	-1.0	-1.5
Hamilton Street Railway	10,114	35.2	4,686	32.3	3,301	38.6	2,127	37.6	-1.1	-2.2
GO Transit[2]	27,826[3]	42.5	21,302	59.4	-	-	6,524	22.0	6.5	11.9
Mississauga	5,842	45.6	3,276	49.6	812	23.3	1,754	64.0	1.4	2.7
Brampton	2,669	76.9	1,931	120.6	672	81.9	66	6.3	11.4	24.7
Oshawa[4]	511	14.1	88	4.1	186	24.0	237	34.3	-5.2	-8.8
Burlington	897	39.4	552	53.3	162	24.0	183	32.3	4.5	9.9
Oakville	852	40.8	514	56.0	111	17.0	227	44.0	4.7	10.7
Markham	1,160	94.2	672	124.7	262	130.3	226	45.9	6.8	15.5
Vaughan	461	77.2	394	218.9	38	45.8	29	8.7	24.1	79.8
Pickering	455	56.0	172	68.5	130	39.0	153	67.1	2.6	8.4
Newmarket	150	44.8	76	78.3	52	41.9	22	19.3	6.8	23.5
Ajax	162	120.9	84	121.7	6	18.7	72	218.2	0.2	0.4
Whitby	183	64.7	45	47.3	87	62.6	51	54.3	2.6	14.6
Richmond Hill	185	65.6	49	47.6	122	196.8	14	12.0	-4.0	-11.0
Milton	81	50.3	29	76.3	44	69.8	8	13.3	4.1	17.4
Aurora	35	32.4	4	15.4	20	40.0	11	34.4	-3.1	-12.9
TOTAL NET CHANGE	181,008	42.8	118,651	43.8	27,200	43.0	35,157	39.7	0.4	0.6

- = Not applicable
(1) Excluding audit adjustments.
(2) GO expenditure and revenue figures were calculated from fiscal years ending March 31/82 and March 31/86; all other figures on table are calculated from 1981 and 1985 calendar years.
(3) Excludes leases, rentals and user charges.
(4) Excludes expenditures and revenues due to a contract for maintenance of GO Transit vehicles.

Sources: 1981 and 1985 Ontario Urban Transit Fact Books, Ministry of Transportation and Communications and Ontario Urban Transit Association, for municipal systems.
GO Transit Annual Reports for years ending March 31/82 and March 31/86 for GO system.

APPENDIX G

CAPITAL EXPENDITURES, REVENUES AND SUBSIDIES

APPENDIX G

CAPITAL EXPENDITURES, REVENUES AND SUBSIDIES

Table G-1 shows the capital expenditures, revenues and subsidies of transit systems in the GTA in 1985.

Capital revenue is the proceeds from the disposal or sale of capital assets such as land, buildings and rolling stock. The capital revenue figures shown in the table are very small, and have consequently been ignored in the discussion of capital expenditures and subsidies in chapter 3 of the report.

TABLE G-1

CAPITAL EXPENDITURES, REVENUES AND SUBSIDIES
OF TRANSIT SYSTEMS IN THE GREATER TORONTO AREA, 1985

Transit System	Total Capital Expenditure		Total Capital Revenue(1)		Capital Subsidies			
					Municipal		Provincial	
	$000	%	$000	%	$000	%	$000	%
Toronto Transit Commission	186,953	84.39	12	85.71	43,495	95.25	143,446	81.57
Hamilton Street Railway	5,887	2.66	0	0	1,504	3.29	4,383	2.49
GO-Transit (2)	26,031	11.75	0 (3)	0	-	-	26,031	14.80
Mississauga	743	0.34	0	0	185	0.41	558	0.32
Brampton	97	0.04	0	0	24	0.05	73	0.04
Oshawa	265	0.12	0	0	66	0.14	199	0.11
Burlington	0	0	0	0	0	0	0	0
Oakville	324	0.15	0	0	81	0.18	243	0.14
Markham	708	0.32	2	14.29	176	0.39	530	0.30
Vaughan	48	0.02	0	0	12	0.03	36	0.02
Pickering	153	0.07	0	0	38	0.08	115	0.07
Newmarket	152	0.07	0	0	38	0.08	114	0.07
Ajax	0	0	0	0	0	0	0	0
Whitby	26	0.01	0	0	7	0.02	19	0.01
Richmond Hill	143	0.06	0	0	36	0.08	107	0.06
Milton	3	0.00	0	0	1	0.00	2	0.00
Aurora	0	0	0	0	0	0	0	0
TOTAL	221,533	100.00	14	100.00	45,663	100.00	175,856	100.00

- = Not applicable
(1) Total Capital Revenue is the total proceeds from the disposal or sale of capital assets such as land, buildings and rolling stock.
(2) GO figures are for the fiscal year ending March 31, 1986; all other figures on the table are for the 1985 calendar year.
(3) Total Capital Revenue for GO (totalling $4,086 thousand for the year ending March 31, 1986) has been excluded here, as this revenue was used to reduce the GO operating subsidy, not the GO capital subsidy.

Sources: 1985 Ontario Urban Transit Fact Book, Ministry of Transportation and Communications and Ontario Urban Transit Association, for municipal systems.
GO Transit Annual Report for year ending March 31/86 for GO system.

APPENDIX H

FARE STRUCTURES

APPENDIX H

FARE STRUCTURES

The fare structures of the 17 transit systems in the Greater Toronto Area as of the fall of 1986 are given in Table H-1. The order of the systems in the table is by descending ridership, the same as in Tables 2 and 3 in Chapter 3 of the report.

TABLE H-1

FARE STRUCTURES OF TRANSIT SYSTEMS
IN THE GREATER TORONTO AREA, 1986

TRANSIT SYSTEM	TORONTO TRANSIT COMMISSION	HAMILTON STREET RAILWAY	GO TRANSIT* (Minimum Fares)	MISSISSAUGA	BRAMPTON	OSHAWA	BURLINGTON
Single Cash Fare ($)							
. Adults	1.00	0.95	1.55	1.00	0.90	0.75	0.85
. Seniors	--	0.95	0.80	--	0.55(1)	0.40(1)	0.55(1)
. Students - Prim/Sec	0.60	0.95	--	1.00	0.65	0.60	0.85
. Post Sec.	--	0.95	--	--	0.65	--	--
. Children	0.45	0.30	0.80	1.00	0.65	0.45	0.25
. Families	--	--		--	--	--	--
. Other	--	--	Special Provisions(6)	--	--	--	--
Tickets/Tokens ($)							
. Adults	5 for 4.00	10 for 9.00	10 for 14.00	10 for 8.50	10 for 8.00	--	10 for 7.50
. Seniors	5 for 2.00 (1)	10 for 5.50(1)		—	10 for 5.00(1)	--	10 for 4.00(1)
. Students - Prim/Sec	5 for 2.00	10 for 5.50	10 for 11.50	10 for 7.00	10 for 5.50	--	10 for 6.50
Post Sec.	—	—		—	10 for 5.50	--	--
. Children	4 for 1.00	10 for 3.00		10 for 7.00	10 for 5.00	--	--
. Other	5 for 2.00 (5)		Special Provisions(6)				
Monthly Pass ($)							
. Adults	41.50	34.00	49.00	7.50(4) or 35.00	--	27.00	31.00
. Seniors	27.25(1)	22.00(1)		--	--	--	16.00
. Students - Prim/Sec	--	22.00(3)(6)	30.00	29.00	--	21.00	26.00
Post Sec.	--	--		--	--	--	--
. Children	--	--		--	--	--	--
Other Pass ($)							
. Sunday/Holiday Pass	3.30	--	6.20	--	--		
. Student Semester Pass	--	105.00-110.00 C/U		--	--		
. Seniors Annual Pass	--	17.50(2)		5.00(1)	--		
Reduced Fare Categories							
. Seniors	Citizen with I.D.	Ontario I.D.	Any I.D.	Citizen with I.D.	Citizen with I.D.	Any I.D.	Any I.D.
. Students	Local E/S I.D.	19 yrs with HSR I.D.	Any E/S/C/U + GO I.D.	Any E/S I.D.	Local E/S/C I.D.	Local E/S I.D.	Local E/S I.D.
. Children	2 yrs - 12 yrs	<14 yrs or 60"	5 yrs to 11 yrs.	—	Under 16 yrs.	Under 58"	Under 12 yrs.
. Children (free)	Under 2 yrs.	<5 yrs. with Adult	<5 yrs. with Adult	<5 yrs. with Adult	Babies-In-Arms	Babies	<5 yrs. with Adult
. Families	5 Persons/2 Adults	—	(Up to 5 Persons	—	—	--	--
. Holidays/Groups	Family-All Day	—	2 Adults >18 yrs.)	—	—	--	--
. Other (free)	—	--	Babies Under 1 yr.	Blind Persons	Blind Persons	--	--

E - Elementary School
S - Secondary School
C - College
U - University

(1) Seniors Over 65 years
(2) Seniors Over 70 years
(3) Unemployed Persons
(4) GO Transit Pass Holders
(5) Eligible War Veterans
(6) Disabled Persons

*Go Transit Adult Fare Formula: 46¢ plus 6.6¢ per km travelled on GO System. Note that GO uses a "Proof of Payment" (POP) system on the Milton rail line.

TABLE H-1 (cont'd)

FARE STRUCTURES OF TRANSIT SYSTEMS
IN THE GREATER TORONTO AREA, 1986

TRANSIT SYSTEM	OAKVILLE	MARKHAM	VAUGHAN	PICKERING	NEWMARKET	AJAX**	WHITBY
Single Cash Fare ($)							
. Adults	0.75	1.00(6)	0.50	0.85	0.65	0.55	0.60
. Seniors	0.40	0.60(1)	0.30	Free(1)	0.40 (1)	0.35	0.35
. Students - Prim/Sec	0.60	0.75	0.30	0.70	0.50	0.45	0.40
Post Sec.	0.60	--	--	--	--	--	--
. Children	0.60	0.60	0.30	0.70	0.40	0.35	0.35
. Families	--	--	--	--	1.00	--	--
. Other	--	2.00(7)	--	--	--	--	Free(6)
Tickets/Tokens ($)							
. Adults	10 for 6.25	10 for 8.00	--	10 for 8.00	20 for 12.00	40 for 19.80	--
. Seniors	10 for 3.25	10 for 5.00(1)	--	--	20 for 7.00(1)	40 for 12.60	--
. Students - Prim/Sec	10 for 5.25	10 for 6.00	--	10 for 7.00	20 for 9.00	40 for 16.20	--
Post Sec.	10 for 5.25	--	--	--	--	--	--
. Children	10 for 5.25	10 for 5.00	--	10 for 7.00	20 for 7.00	40 for 12.60	--
. Other	10 for 7.50	--	--	--	--	--	--
Monthly Pass ($)							
. Adults	--	--	--	--	--	--	22.00
. Seniors	--	--	--	--	--	--	12.00
. Students - Prim/Sec	--	--	--	--	--	--	12.00
Post Sec.	--	--	--	--	--	--	--
. Children	--	--	--	--	--	--	12.00
Other Pass ($)							
. Sunday/Holiday Pass	--	--	--	--	--	--	--
. Student Semester Pass	--	--	--	--	--	--	--
. Seniors Annual Pass	--	--	--	--	--	--	--
Reduced Fare Categories							
. Seniors	Any I.D.	Citizen with I.D.	Citizen with I.D.	Any I.D.	Any I.D.	Citizen with I.D.	Any I.D.
. Students	Local E/S/C I.D.	Local E/S I.D.	Local E/S I.D.	12 Yrs. and Over	12-18 Yrs. - E/S I.D.	Any E/S I.D.	Local E/S I.D.
. Children	--	Under 12 Yrs.	Using a Seat	5 to 11 Yrs.	Under 12 Yrs.	Under 13 Yrs.	Under 12 Yrs.
. Children (free)	<5 yrs with adult	Babies	Babies	<5 Yrs. with Adult	--	<5 Yrs with Adult	<5Yrs. with Adult
. Families	--	--	--	--	Adult(s)+Children	--	--
. Holidays/Groups	--	--	--	--	--	--	--
. Other (free)	--	Blind with CNIB I.D.	--	--	--	--	--

E - Elementary School
S - Secondary School
C - College
U - University

(1) Seniors Over 65 years
(6) Disabled Persons
(7) Disabled - Out-of-Town

**Ajax "Tickets/Tokens" take the form of a "40-Ride Punch Pass".

TABLE H-1 (cont'd)

FARE STRUCTURES OF TRANSIT SYSTEMS
IN THE GREATER TORONTO AREA, 1986

TRANSIT SYSTEM	RICHMOND HILL	MILTON	AURORA
Single Cash Fare ($)			
. Adults	0.80	0.65	0.50
. Seniors	0.45(1)	0.35(1)	0.25(1)
. Students - Prim/Sec	0.55	0.35	0.40
Post Sec.	--	--	--
. Children	0.45	--	0.25
. Families	--	--	--
. Other	--	--	--
Tickets/Tokens ($)			
. Adults	--	5 for 3.00	--
. Seniors	--	5 for 1.50 (1)	--
. Students - Prim/Sec	-	10 for 3.00	--
Post Sec.	--		
. Children	--		
. Other			
Monthly Pass ($)			
. Adults	--	--	--
. Seniors	--	--	--
. Students - Prim/Sec	--	--	--
Post Sec.	--	--	--
. Children	--	--	--
Other Pass ($)			
. Sunday/Holiday Pass	--	--	--
. Student Semester Pass	--	--	--
. Seniors Annual Pass	--	--	--
Reduced Fare Categories			
. Seniors	Any I.D.	Any I.D.	Any I.D.
. Students	12-18 yrs. - E/S I.D.	Any E/S I.D.	Any E/S I.D.
. Children	Under 12 yrs.	--	Under 12 yrs.
. Children (free)	--	<5 yrs with Adult	Babies
. Families	--	--	--
. Holidays/Groups	--	--	--
. Other	--	--	--

E - Elementary School
S - Secondary School
C - College
U - University

(1) Seniors Over 65 years

APPENDIX I

PASSENGER CHARACTERISTICS

APPENDIX I

PASSENGER CHARACTERISTICS

Eleven special transportation surveys conducted in the study area over the last few years were examined for the specific demographic and socio-economic characteristics of transit riders.* The following are the key transit-rider characteristics which were identified almost universally across all of the survey findings.

HEAVY TRANSIT RIDERS

Heavy transit riders (more than 10 trips per week) are likely to be:

- young adults and teenagers between 15 and 25 years of age
- renters rather than homeowners
- living in multiple unit dwellings
- earning lower than the average personal or household income levels
- working in lower paid white collar occupations particularly clerical, sales and service occupations
- with no access to a car

LIGHT TO MEDIUM TRANSIT RIDERS

Light to medium transit riders tend to be:

- full time students and young people between 15 and 25 years of age
- ranging from part-time workers to those not in the labour force and who do not have access to a car

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*The 11 surveys are:

- 1979 Metro Home Interview Survey
- Durham Region 1979 Transportation Planning Travel Survey Program
- 1979-1980 York Travel Survey (York Region)
- 1980 Metro Employee Travel Survey
- 1982 Commuter Study (prepared by Canadian Facts for the TTC)
- The York Region 1982 Employment End Travel Survey
- The Employee Transportation Survey in Peel (1983)
- 1983 GO Train Passenger Survey
- Durham Region 1984 Transportation Planning Survey
- 1985 GO Bus Passenger Survey
- Mississauga Transit Public Attitude and Ridership Survey (1987)

MALE VERSUS FEMALE TRANSIT RIDERS

A number of surveys have found that across all travel modes, more males than females commute to work on a daily basis. However, on suburban bus routes, female riders outnumber their male counterparts by more than 2 to 1.

GO RAIL RIDERS VERSUS GO BUS RIDERS

The most significant difference in passenger characteristics between the GO Rail and GO Bus Surveys is that ridership on GO Rail is an increasing function of gross family income, and exactly the reverse is true for the ridership on GO Bus. Almost 23 percent of GO Bus riders compared to just 13 percent of GO Rail riders reported less than $20,000 annual gross family income. In contrast, more than 26 per cent of GO Rail riders and less than 16 per cent of GO Bus Riders reported annual gross family income in excess of $50,000.

Another related factor is access to or availability of a car. Almost 72 per cent of the ridership on GO Rail had access to a car, but only 50 per cent had car access or availability among GO Bus riders.

TTC USERS VERSUS NON TTC USERS

A study of cross-boundary commuters to Metro identified the following characteristics among TTC users and non TTC users:

- usage of the TTC is skewed towards females
- TTC users are likely to be between 20 and 24 years of age and in the 55 to 64 year age bracket
- 37 per cent of the total TTC users are employed in professional, executive and managerial positions versus 47 per cent in clerical and sales occupations
- both the highest and lowest income brackets are more likely to commute by TTC. Indeed, the middle-income commuter ($20,000 to $39,999 per annum) is more likely to be a car driver, and
- non TTC users are more likely to have access to two or more cars, while TTC users are likely to have access to only one car.

METRO TRANSIT USERS VERSUS AUTO USERS

The findings from a home interview survey conducted in Metropolitan Toronto bear out the findings of the other studies:

- About 42 per cent of transit users are renters versus just 29 per cent of auto users

- About 40 per cent of transit users live in apartments versus less than 26 per cent of auto users
- Approximately 43 per cent of the transit users who divulged their total household income earn less than $20,000 per annum whereas 33 per cent of the auto users who offered this same information are in the same income bracket

CENTRAL AREA EMPLOYEES VERSUS EMPLOYEES IN THE REST OF METRO

Lastly, an employee travel survey of central area workers (essentially in the central business district) versus workers in the rest of Metro points out some distinct differences, as well as similarities, in the characteristics of transit users. Among male and female employees, all of them transit riders:

- Almost 74 percent of male transit riders in the central area are in professional/technical and executive or managerial occupations. However, less than 27 per cent of the male transit riders in the rest of Metro are in the same occupational categories.
- Almost 80 per cent of female transit users in the central area and 63 per cent of those in the rest of Metro are in clerical, sales and service occupations.

APPENDIX J

FORECASTS OF POPULATION, EMPLOYMENT AND PERSON TRIPS

APPENDIX J

FORECASTS OF POPULATION, EMPLOYMENT AND PERSON TRIPS

INTRODUCTION

The forecasts of population and employment growth in the greater Toronto area, and the expected increase in person trips crossing the Metro boundary to the year 2011, were prepared by the Transportation Demand Research Office of the Ministry of Transportation. The following is a detailed description of the methods and assumptions used to develop the high and low forecasts for the years 1991, 2001 and 2011.

POPULATION AND EMPLOYMENT FORECASTS

GROWTH SCENARIOS

All of the growth forecasts are based on two scenarios or possible futures related to varying assumptions about "growth in the province". More accurately described, the scenarios are based on the competitiveness of Ontario's economy in relation to both Canadian and world markets. Both scenarios assume sufficient economic growth to attract people from abroad for living and employment opportunities here.

Two components determine the differences between the high and low forecasts:

1) The level of Net Migration to Ontario and Changes in Net Fertility Rates

Under the low forecast the fertility rate is expected to first decrease to 1.35 in 1991, and then increase to today's level of between 1.4 and 1.5 (actually the 1984-1985 level).

Under the high forecast, the fertility rate would increase to a level close to 2.0, but still be below the rate required for replacement of the resident population (i.e., about 2.2).

In both scenarios, long term growth in population for the province and the GTA is expected to be entirely due to "net migration" into the province from abroad and into the GTA from other parts of the province.

2) Factors Influencing the Distribution of Wealth

Under the low forecast, if there is something of an economic slowdown, then plans for the decentralization of employment opportunities in the GTA (i.e., the

development of retail and office commercial as well as industrial activities in the outer regions) would not go ahead as fast.

Under the high forecast, the trends towards decentralization would be maximized.

Realistically, such economic trends as the shorter workweek, shorter hours, the effects of new technology on manufacturing, etc., would also affect the high and low scenarios. However, such factors have not yet been incorporated into the forecasts.

A breakdown of the population and employment forecasts by Region is contained in Tables J-1 and J-2.

PERSON TRIP FORECASTS

DEVELOPMENT OF WORK LINKAGES

Trip estimates are derived from work linkages, based on 1981 Census data relating place-of-work to place-of-residence.

Future year labour force estimates are derived from current labour force participation rates applied to the population forecasts. Future year employment levels are then estimated using a future year labour force factor applied to the current year work linkages.

A factoring procedure is then used to balance the employment levels derived from this estimating procedure against a separate set of employment forecasts for origin-destination zones. The resulting tables of future work linkages are then examined and manually adjusted (as required) for overall consistency.

PERSON TRIPS CROSSING THE METRO BOUNDARY

Future work linkages are then converted to total two-way daily person trips using a factor developed from the results of travel surveys done in 1964 and 1979. The results of the estimation procedure have also been compared for consistency against actual traffic data, such as cordon counts for 1981, at specific locations.

The trip generation factor is however limited to person trips crossing the Metro boundary. This is due to a lack of necessary data from both traffic surveys and

cordon counts to generate total person trips crossing all the regional boundaries in the GTA. Based on 1985 data from cordon counts only, the Transportation Demand Research Office estimates that total person trips crossing the Metro boundary represent approximately 82 per cent of all (two-way) inter-regional trips in the GTA.

The estimates of future daily person trips across the Metro boundary are given in Table 10, found in Chapter 4 of the report.

TABLE J-1

POPULATION BY REGION IN THE GREATER TORONTO AREA 1981-2011

Region	1981		1986		1991		2001		2011		Absolute Increase	% of Increase	Rate of Increase
	Number	%	Number	%	Number	%	Number	%	Number	%			
Low Forecast													
Metro Toronto	2,137,442	55.8	2,192,721	52.8	2,190,200	49.5	2,185,200	46.8	2,190,200	44.7	52,758	4.9	2.5
Durham	283,610	7.4	326,179	7.9	379,900	8.6	424,900	9.1	459,900	9.4	176,290	16.5	62.2
York	252,053	6.6	350,602	8.4	440,200	10.0	525,200	11.2	618,200	12.6	366,147	34.2	145.3
Peel	490,731	12.8	592,169	14.2	674,700	15.3	769,700	16.5	833,700	17.0	342,969	32.0	69.9
Halton	253,883	6.6	271,389	6.5	300,000	6.8	320,000	6.9	338,000	6.9	84,117	7.9	33.1
Hamilton-Wentworth	411,445	10.8	423,398	10.2	435,700	9.8	445,700	9.5	459,700	9.4	48,255	4.5	7.3
GTA Total	3,829,164	100.0	4,156,458	100.0	4,420,700	100.0	4,670,700	100.0	4,899,700	100.0	1,070,536	100.0	28.0
High Forecast													
Metro Toronto	2,137,442	55.8	2,192,721	52.8	2,190,200	49.5	2,250,200	44.9	2,300,200	42.4	162,758	10.2	7.6
Durham	283,610	7.4	326,179	7.9	379,900	8.6	479,900	9.6	549,900	10.1	266,290	16.6	93.9
York	252,053	6.6	350,602	8.4	440,200	10.0	600,200	12.0	744,200	13.7	492,147	30.8	195.3
Peel	490,731	12.8	592,169	14.2	674,700	15.3	849,700	16.9	913,700	16.8	422,969	26.4	86.2
Halton	253,883	6.6	271,389	6.5	300,000	6.8	370,000	7.4	435,000	8.0	181,117	11.3	71.3
Hamilton-Wentworth	411,445	10.8	423,398	10.2	435,700	9.8	460,700	9.2	486,700	9.0	75,255	4.7	11.3
GTA Total	3,829,164	100.0	4,156,458	100.0	4,420,700	100.0	5,010,700	100.0	5,429,700	100.0	1,600,536	100.0	41.8
Midpoint of Low and High Forecasts													
Metro Toronto	2,137,442	55.8	2,192,721	52.8	2,190,200	49.5	2,217,700	45.8	2,245,200	43.5	107,758	8.1	5.0
Durham	283,610	7.4	326,179	7.9	379,900	8.6	452,400	9.4	504,900	9.8	221,290	16.6	78.0
York	252,053	6.6	350,602	8.4	440,200	10.0	562,700	11.6	681,200	13.2	429,147	32.1	170.3
Peel	490,731	12.8	592,169	14.2	674,700	15.3	809,700	16.7	873,700	16.9	382,969	28.7	78.0
Halton	253,883	6.6	271,389	6.5	300,000	6.8	345,000	7.1	386,500	7.5	132,617	9.9	52.2
Hamilton-Wentworth	411,445	10.8	423,398	10.2	435,700	9.8	453,200	9.1	473,200	9.1	61,755	4.6	9.3
GTA Total	3,829,164	100.0	4,156,458	100.0	4,420,700	100.0	4,840,700	100.0	5,164,700	100.0	1,335,536	100.0	34.9

Source: Ministry of Transportation, Transportation Demand Research Office.
The 1981 and 1986 figures are from the Census of Canada.

TABLE J-2

EMPLOYMENT BY REGION IN THE GREATER TORONTO AREA 1981-2011

Region	1981		1991		2001		2011		Absolute Increase	% of Increase	Rate of Increase
	Number	%	Number	%	Number	%	Number	%			
Low Forecast											
Metro	1,276,033	62.9	1,404,233	58.7	1,456,233	56.3	1,509,233	55.1	233,200	32.7	18.3
Durham	110,211	5.4	147,111	6.1	162,111	6.3	177,111	6.5	66,900	9.4	60.7
York	108,170	5.3	187,402	7.8	225,302	8.7	265,402	9.7	157,232	22.1	145.4
Peel	232,663	11.5	317,363	13.3	389,363	15.0	414,363	15.1	181,700	25.5	78.1
Halton	100,799	5.0	123,699	5.2	133,699	5.2	143,699	5.2	42,900	6.0	42.6
Hamilton-Wentworth	200,463	9.9	213,263	8.9	221,263	8.5	231,263	8.4	30,800	4.3	15.4
GTA Total	2,028,339	100.0	2,393,071	100.0	2,587,971	100.0	2,741,071	100.0	712,732	100.0	35.1
High Forecast											
Metro Toronto	1,276,033	62.9	1,404,233	58.7	1,524,233	54.4	1,604,233	53.4	328,200	33.7	25.7
Durham	110,211	5.4	147,111	6.1	187,111	6.7	207,111	6.9	96,900	10.0	87.9
York	108,170	5.3	187,402	7.8	280,402	10.0	320,402	10.7	212,232	21.8	196.2
Peel	232,663	11.5	317,363	13.3	409,363	14.6	439,363	14.6	206,700	21.3	88.8
Halton	100,799	5.0	123,699	5.2	163,699	5.9	178,699	6.0	77,900	8.0	77.3
Hamilton-Wentworth	200,463	9.9	213,263	8.9	236,263	8.4	251,263	8.4	50,800	5.2	25.3
GTA Total	2,028,339	100.0	2,393,071	100.0	2,801,071	100.0	3,001,071	100.0	972,732	100.0	47.9
Midpoint of Low and High Forecasts											
Metro Toronto	1,276,033	62.9	1,404,233	58.7	1,490,233	55.3	1,556,733	54.2	280,700	33.3	22.0
Durham	110,211	5.4	147,111	6.1	174,611	6.5	192,111	6.7	81,900	9.7	74.3
York	108,170	5.3	187,402	7.8	252,852	9.4	292,902	10.2	184,732	21.9	170.8
Peel	232,663	11.5	317,363	13.3	399,363	14.8	426,863	14.9	194,200	23.1	83.5
Halton	100,799	5.0	123,699	5.2	148,699	5.5	161,199	5.6	60,400	7.2	59.9
Hamilton-Wentworth	200,463	9.9	213,263	8.9	228,763	8.5	241,263	8.4	40,800	4.8	20.3
GTA Total	2,028,339	100.0	2,393,071	100.0	2,694,521	100.0	2,871,071	100.0	842,732	100.0	41.5

Source: Ministry of Transportation, Transportation Demand Research Office.
The 1981 figures are from the Census of Canada.